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PINEDALE

Resource Management Plan

Record of Decision

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RECORD OF DECISION

and

RESOURCE MANAGEMENT PLAN

for the

PINEDALE RESOURCE AREA

Prepared By:

U.S. Department of the Interior
Bureau of Land Management
Pinedale Resource Area
Rock Springs District
Rock Springs, Wyoming

December 1988

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12-12-88
Date

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RECORD OF DECISION

RECORD OF DECISION FOR THE PINEDALE RESOURSE MANAGEMENT PLAN

DECISION

The decision is to select and approve the attached resource management plan (RMP) for the Pinedale Resource Area (PRA). The attached RMP will guide the management of the Pinedale Resource Area and fulfill the requirements for the rangeland program summary (RPS). A copy of the Pinedale Resource Management Plan/Environmental Impact Statement (RMP/EIS) is on file in the Pinedale Resource Area Office.

The Bureau's recommendations to the Secretary of the Interior on the Scab Creek and Lake Mountain Wilderness Study Areas (WSAs) are being made under separate documentation. These areas were addressed in separate EIS documents which are also on file in the Pinedale Resource Area Office.

The decisions in the approved RMP provide general management prescriptions for public lands and resources and the allocation of their uses. The decisions are designed primarily to resolve four general issues. The issues identified were: 1) Conflicts between surface-disturbing development activities and other land and resource uses, and the identification of areas that are suitable or unsuitable for development activities; 2) adequacy of resource accessibility and manageability, and the identification of access needs and areas suitable for disposal; 3) conflicts between consumptive and nonconsumptive resource uses, and the identification of lands where activities, such as timber harvest and livestock grazing, are acceptable and compatible with other resource uses; and 4) conflicts between off-road vehicle (ORV) use and other land and resource uses, and identification of ORV use areas and other recreation facility needs.

Areas of Critical Environmental Concern

The Beaver Creek proposed ACEC (3,548 acres) is hereby designated an ACEC. The previous designation of the Rock Creek ACEC (5,264 acres) is retained. The RMP includes management prescriptions for both of these areas.

Protests Received

Two protests on the Pinedale Proposed RMP/Final EIS were received during the 30-day protest period. Enron Corporation filed a protest against application of a seasonal use restriction on crucial mule deer winter range. The proposed planning decisions involved included 1) leaving the crucial winter ranges open to consideration for oil and gas leasing, exploration, and development, with appropriate mitigation or restrictions applied as necessary; and 2) protecting crucial big game winter ranges from surface and human disturbance activities as necessary between November 15 and April 30. This protest was resolved in June 1988, with the Director upholding the proposed RMP decision without modification.

A second protest was filed by the National Wildlife Federation (NWF) against mineral leasing within the Deadline-Graphite crucial winter elk habitat. The proposed planning decisions involved included 1) leaving the crucial winter ranges open to consideration for oil and gas leasing, exploration, and development, with appropriate mitigation or restrictions applied as necessary; and 2) protecting the naturally wintering herd of elk and their crucial winter habitat. Emphasis in the Deadline-Graphite area would be placed on maintaining the crucial habitat for the wintering elk herd. An activity plan would be prepared to address the specific leasing methods to be implemented while complying with the RMP decision. Public participation and further coordination with the National Wildlife Federation would allow public input into the activity plan formulation. After reviewing the protest, it was determined that the RMP/EIS adequately considered the proposed planning decision being protested. Further public involvement during activity planning would provide the NWF and other members of the public meaningful input in the decisionmaking process affecting the resources of the Pinedale Resource Area, generally, and specifically the crucial elk winter habitat in the Deadline-Graphite area. Therefore, the protest was dismissed.

Alternatives

Alternatives Considered In Detail

Each of the four alternative plans examined in detail provided a different emphasis for managing the resource area, and each resolved the planning issues in a different way.

Alternative A, Continuation of Present Management (No Action), would continue the existing management and uses of the public lands and resources at present projected levels.

Alternative B emphasized developing and using natural resources. Environmental protection was still provided for but the major emphasis was on resource development.

Alternative C emphasized protection of the environment to a greater extent than Alternatives A or B. Resource development was still provided for but the major emphasis was on resource protection.

The Preferred Alternative allowed for resource use, with greater emphasis on the protection of the natural environment than Alternatives A or B. The Preferred Alternative consisted of watershed and wildlife prescriptions from Alternative C, wild horse management prescriptions from Alternative B, and the remaining resource management prescriptions (e.g., mineral leasing, forest management, and livestock grazing) from Alternatives A, B, and C.

The approved plan consists of the proposed plan described in the Final EIS. The approved plan consists mainly of the Preferred Alternative (Draft RMP/EIS) with some reorganization and changes as a result of public comment. With few exceptions, these changes consisted mainly of clarification of the objectives presented in the Draft RMP/EIS. The land use plans of local and state governments and other federal agencies in and around the Pinedale Resource Area have been considered during the planning process to ensure the approved RMP will be compatible with them. The approved plan is the environmentally preferable alternative.

Alternatives Eliminated from Detailed Study

Alternatives considered but eliminated from detailed study: no oil and gas leasing, and restrictions less stringent than no surface occupancy; no grazing on public lands; no timber harvesting on public lands; and maximum unconstrained alternatives that would exclude other resource uses.

Public Participation/Consistency

Public participation occurred throughout the planning process. Both formal and informal involvement were encouraged and utilized. The public participation that occurred is described in Chapter 5 of the Proposed RMP/Final EIS. The Environmental Protection Agency notice of filing for the Final EIS was published in the *Federal Register* on December 4, 1987. Numerous news articles were published in newspapers and presented on the radio concerning both the draft and final EISs. Two protests were received on the Proposed RMP/Final EIS.

Numerous government agencies, organizations, and individuals received copies of both the draft and final EIS documents. Comment letters were received from 47 individuals and organizations at the draft RMP/EIS stage. Responses to these comments were prepared and printed in the Proposed RMP/Final EIS.

Grazing permittees/lessees were contacted throughout the process and were consulted during the allotment categorization process. Discussions included: range condition and trend, existing grazing management, changes in management, range suitability, forage production potential, wildlife habitat values, user conflicts, public controversy, land ownership patterns and acreages, and range improvement needs.

The U.S. Fish and Wildlife Service concurred with the BLM "no effect" conclusion on the approved RMP for threatened and endangered species.

The Governor's letter of January 18, 1988, indicated no consistency problems between the approved RMP and State of Wyoming plans and programs.

The public is invited to continue to participate in the implementation of the approved Pinedale RMP. This would occur through involvement in the activity planning phase of the planning process which deals with site specific and detailed decisionmaking and project implementation or approval in support of the general land use planning determinations presented in the approved RMP.

The approved Pinedale RMP is consistent with officially adopted plans, programs, and policies of other Federal agencies and State and local governments, as well as those of the Department of Interior and BLM.

Plan Evaluation

Implementation of the management actions and decisions in the RMP will be tracked and evaluated to determine their effectiveness and to determine if the objectives of the RMP are being met. If evaluation indicates that the RMP is not working as expected or needed, or if situations in the resource area change, it may become necessary to modify, amend, or revise the approved RMP.

RECORD OF DECISION

All mitigation measures identified directly or referenced or implied in the approved Pinedale RMP are adopted. Additional or revised mitigation identified through activity planning or individual analysis, and that are in conformance with plan objectives, will be considered a supporting part of the approved RMP.

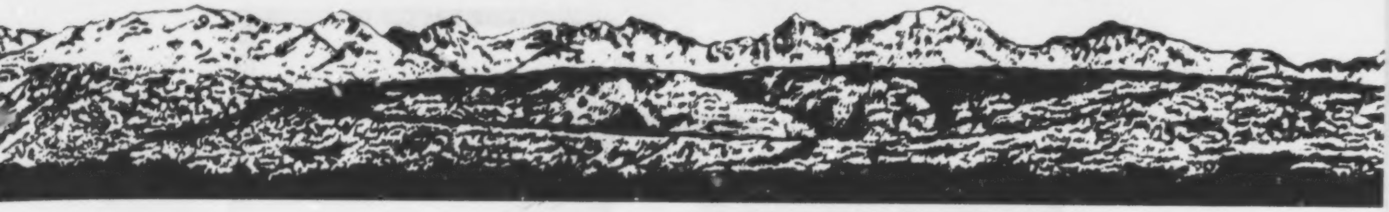
Hillary A. Oden

Hillary A. Oden
Wyoming State Director
Bureau of Land Management

12-12-88

Date

RESOURCE MANAGEMENT PLAN



PINEDALE APPROVED RESOURCE MANAGEMENT PLAN

INTRODUCTION

This Resource Management Plan (RMP) provides the management direction for approximately 931,000 acres of public surface and 1,185,000 acres of federal mineral estate (approximately 919,000 of these acres are both federal surface and federal mineral estate) administered by the Bureau of Land Management within the Pinedale Resource Area.

The resource area administrative boundary includes portions of Sublette, Lincoln, Teton, and Fremont counties (Map 1). The RMP planning area includes portions of Sublette and Lincoln counties; and the towns of Pinedale, Big Piney, Marbleton, and LaBarge. Those federal lands under surface administration of other federal agencies (Forest Service, Park Service, etc.) within the resource area boundary are not addressed.

The approved Pinedale RMP represents a selection of management actions which resolve the planning issues and provide for multiple use management of the public lands and resources with environmental integrity and in a combination that will best meet foreseeable needs.

The approved Pinedale RMP supercedes all previous planning decisions, land use allocations, and classifications for the Pinedale Resource Area.

Planning Process

Development of the approved Pinedale RMP represents the second tier of the three-tiered BLM planning process. The RMP generally prescribes the future resource and land use allocations for the public lands administered by BLM in the Pinedale Resource Area. This process of resource and land use allocations guides subsequent activity planning and implementation and daily operations.

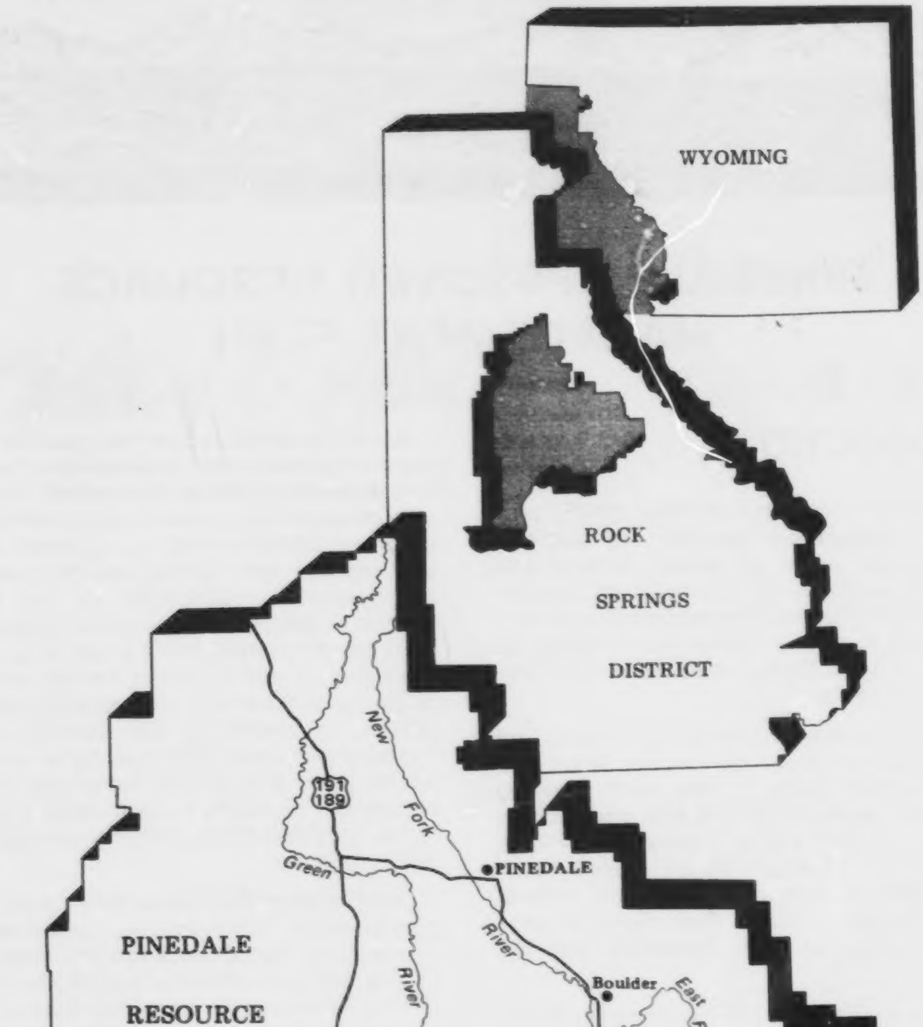
Activity planning represents the third tier of the planning process and incorporates the resource and land use decisions of the RMP into the specific management guidance for administering the uses and implementing management actions in the resource area. During activity planning, the management prescriptions in the RMP are applied to specific local areas in developing and implementing site-specific plans (e.g., allotment management plans, habitat management plans); in issuing various land and resource use authorizations; in identifying site specific mitigation needs; and in developing and implementing other similar plans and actions. Interested or affected parties will be notified and invited to participate in the development of resource management activity plans.

The Pinedale RMP will be kept current through maintenance, amendments, or revisions, as demands on public lands and resources change, as the land and resource conditions change, or as new information is acquired. Amendments for actions not in conformance with plan objectives would be considered but not automatically initiated. Where analysis determines that the objectives established in the plan are the desired objectives, the plan would not be amended, and nonconforming actions would not be allowed.

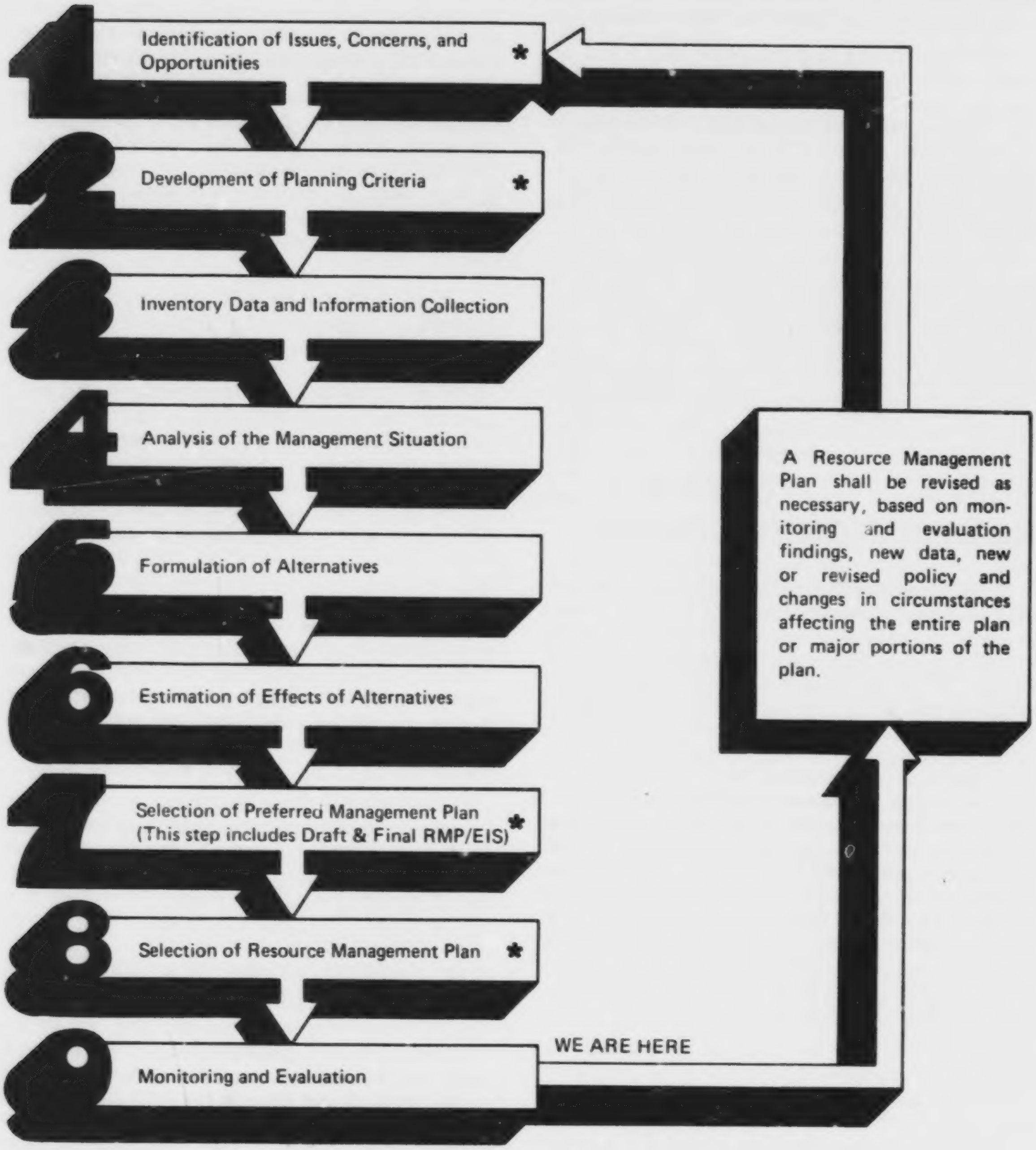
Figure 1 provides an illustration of the planning process.

Special Situation Concerning Public Land Withdrawal and Classification Orders in Effect On January 1, 1981

On February 10, 1986, Federal Court Judge John H. Pratt issued a preliminary injunction order, in the National Wildlife Federation (NWF) versus Robert F. Burford, et al. (Civil Action No. 85-2238 D.C.D.C.). This order instructed the BLM to manage public lands in conformity with the



Map 1
GENERAL LOCATION MAP
Pinedale Resource Management Plan


1
Identification of Issues, Concerns, and Opportunities *
2
Development of Planning Criteria *
3
Inventory Data and Information Collection
4
Analysis of the Management Situation
5
Formulation of Alternatives
6
Estimation of Effects of Alternatives
7
Selection of Preferred Management Plan (This step includes Draft & Final RMP/EIS) *
8
Selection of Resource Management Plan *
9
Monitoring and Evaluation
WE ARE HERE

A Resource Management Plan shall be revised as necessary, based on monitoring and evaluation findings, new data, new or revised policy and changes in circumstances affecting the entire plan or major portions of the plan.

* Public Participation Opportunities

Figure 1
PLANNING PROCESS

express conditions contained in land withdrawal and land classification orders that were in effect on January 1, 1981. On November 4, 1988, Judge Pratt dismissed the lawsuit for lack of standing.

The Court found that the NWF had failed to show injury resulting from the BLM terminating outdated withdrawals and classifications and that there was no basis for the lawsuit. The November 4, 1988, order, issued by the Court, vacated the preliminary injunction, granted the BLM's motion for summary judgment, and dismissed the case for lack of standing.

On November 14, 1988, the NWF filed an appeal of the case dismissal. In the interim of the Court taking any action on this appeal and lacking any such action or further litigation of the matter that would bind the BLM, affected decisions in this approved RMP (i.e., to terminate any existing withdrawals or classifications) may be implemented.

SURFACE DISTURBANCE RESTRICTION DECISIONS

The surface disturbance restrictions are necessary to protect certain sensitive resources and areas from adverse affects of surface-disturbing activities and human presence, and are inclusive of the various management actions developed in and analyzed for the approved RMP. These restrictions apply to all types of activities involving surface disturbance or human presence impacts and are applied in accordance with the guidelines described in the Wyoming BLM Standard Mitigation Guidelines for Surface-Disturbing Activities (Appendix A-1). The guidelines include, where applicable, proposals for waiver, exception, or modification, based on analysis for individual actions. This would allow for situations where a surface-disturbing activity may actually benefit sensitive resources, and allow for those occasions when analysis determines that an activity will not affect those resources.

Appendix A-1 will be used, as appropriate, to condition development activities in all programs where surface-disturbing activities occur and where the objectives of the RMP include the protection of important resource values. On a case-by-case basis, activities will be conditioned by any one or more of the mitigations in Appendix A-1 to avoid or minimize impacts to other important resource values and sensitive areas. Use restrictions (e.g., dates, distances) may be made more or less stringent depending upon the needs of specific situations. The restrictions identified under the various resource programs are complimentary to the standards in Appendix A-1 and are not all-inclusive. They represent both actual requirements applicable to specific circumstances, and examples of requirements that will be considered and that may be applied, if necessary. Additional restrictions may be placed on surface-disturbing activities as necessary.

The mitigations identified in the RMP serve to provide a degree of protection to affected resources, not to unnecessarily restrict activities. The RMP provides the flexibility for modifications or exceptions to restrictions in specific circumstances where a restriction is determined not to apply or is not needed to achieve a desired objective.

Surface disturbance is characterized by the removal of vegetative cover and soil materials. Where actual excavation does not occur, activities may be allowed to occur with less stringent limitations provided that the objectives and purpose for the surface disturbance restrictions are met. Timber harvesting within 500 feet of streams or riparian areas and on slopes greater than 25 percent are examples where less stringent application of the standard mitigation guidelines (Appendix A-1) would apply. This would be applicable to those timber harvest activities, such as tree cutting, skidding, and slash disposal, that do not fully remove vegetative cover and soil materials. In the past, allowing these activities with a 100-foot streamside buffer distance and on slopes greater than 25 percent have proven effective. However, road construction or staging/loading areas for logging equipment would not meet the less stringent definition and would be subject to the standard requirements of 500 feet and 25 percent slope.

The mitigations prescribed for Federal mineral development on split estate lands (federal mineral/nonfederal surface) apply only to the development of the Federal minerals. These mitigations do not dictate the surface owners' management of their lands. The mitigations present restrictions on only those surface activities conducted for purposes of developing the federal minerals and that are permitted, licensed, or otherwise approved by the BLM.

When the BLM is considering issuing a mineral lease, the agency has a statutory responsibility under the National Environmental Policy Act to assess the potential environmental impacts of the Federal undertaking. It also has the statutory authority under the Mineral Leasing Act of 1920, the Mineral Leasing Act for Acquired Lands, and the Federal Land Policy and Management Act of 1976 to take reasonable measures to avoid or minimize adverse environmental impacts that may result from federally authorized mineral lease activities. This authority exists regardless of whether or not the surface is federally owned.

The Mineral Leasing Act of 1920, the Mineral Leasing Act for Acquired Lands, and the Federal Land Policy and Management Act of 1976 are not the only statutes that establish such authority. Other statutes that may be applicable include the Clean Water Act, the Clean Air Act, the National Historic Preservation Act, the Endangered Species Act of 1973, the Federal Coal Leasing Amendments Act of 1976, and the Surface Mining Control and Reclamation Act of 1977. Moreover, the recently enacted Federal Onshore Oil and Gas Leasing Reform Act of 1987 specifically requires the BLM to regulate surface disturbance and reclamation on all leases.

Necessary protection from surface-disturbing activities will be provided for wintering wildlife on about 461,090 acres of crucial and noncrucial winter range (Table 1, Maps 2, 3, and 4). Seasonal restrictions will be incorporated into all land use authorizations where appropriate. This includes approximately 13,440 acres of noncrucial elk winter range in the Bench Corral area; approximately 3,400 acres of noncrucial elk winter range in the Miller Mountain area; and approximately 12,800 acres of noncrucial deer winter range in the Mesa area.

No surface occupancy will be allowed on elk feedgrounds (Appendix A-2). Exceptions may be allowed if analysis indicates that proposed activities will either benefit or cause no adverse impacts to the elk. Further public input will be required for exceptions that are not designed to specifically benefit elk.

No activity or surface disturbance will be allowed in elk calving areas during periods of use, usually between May 1 and June 30 (Table 1 and Appendix A-1).

Sage grouse leks (occupied strutting grounds) and related nesting areas will be protected in accordance with the Wyoming BLM mitigation guidelines (see Table 1 and Appendix A-1). Activity will generally be restricted to existing roads and trails. Other activities may be allowed if environmental analysis indicates that nesting sage grouse concentrations will not be adversely affected. Activity between the hours of 12 midnight and 9:00 a.m. will not be allowed within approximately one half mile of leks (e.g., during strutting season).

Seasonal restrictions will be applied to active raptor nests. Priority for further inventory of raptor nest locations will be given to areas where activities and surface disturbance are proposed.

No surface disturbance will be allowed within 500 feet of riparian habitat, wetland, and(or) live water unless a high potential for successful rehabilitation exists and(or) impacts will be temporary in nature. Guidance is supplied in Appendix A-1.

No surface disturbance will be allowed on the Upper Green River special recreation management area, except as identified in a management plan for that area.

No surface disturbance will be allowed within one-quarter mile or the visual horizon (whichever is closer) of contributing segments of historic trails (Map 5).

Waste disposal facilities (e.g., drilling fluid pits, solid waste, and sanitary facilities) will not be authorized on floodplains, wetlands, and related riparian zones (Table 1).

Surface disturbance will be minimized in crucial watersheds, such as Soap Holes Basin and Tip Top, with emphasis on reducing soil erosion and sediment and salinity contributions to the Green River Basin water system (Table 1). Surface-disturbing activities will be appropriately restricted in accordance with the Standard Mitigation Guidelines and standard practices applied to surface-disturbing activities (Appendices A-1 and A-3).

No surface occupancy will be allowed on cultural sites 48SU301, 48SU350, and 48LN300, and on developed and semi-developed recreation sites. No exceptions will be allowed without further public input.

Surface disturbances will not be allowed within one-quarter mile of developed and semi-developed recreation sites unless activities were determined to be compatible with recreation objectives for the area.

No surface occupancy will be allowed in the Rock Creek drainage within the Rock Creek Area of Critical Environmental Concern (ACEC) (approximately 4,200 acres). The only exceptions are activities proposed to benefit the Colorado River cutthroat trout habitat. No exceptions will be allowed without further public input.

Surface disturbance will not be allowed within 1,000 feet of streams and on slopes of 25 percent or greater within the Beaver Creek ACEC.

AIR QUALITY MANAGEMENT DECISIONS

Introduction

Air quality management is conducted through cooperation with other agencies such as the Forest Service, Department of Environmental Quality, and the Environmental Protection Agency.

TABLE 1

RESTRICTIONS FOR ALL SURFACE-DISTURBANCE ACTIVITIES

Affected Area	Restriction	Restricted Area	Approximate Acres Restricted[1]
Big Game Crucial Winter Ranges	Nov. 15 - April 30	Antelope, elk, moose, and mule deer crucial winter ranges	461,090
Elk Calving Areas	May 1 - June 30	Designated calving area	56,080
Sage Grouse Leks and Nesting Areas	Feb. 1 - July 31	Up to 2-mile radius of lek	Acreage will vary annually as active nest locations change.
Golden Eagle Nest	Feb. 1 - July 31	Within one-half mile radius	
Osprey Nest	Feb. 1 - July 31	Within one-half mile radius	
Swainson's Hawk Nest	Feb. 1 - July 31	Within one-half mile radius	
Ferruginous Hawk Nest	Feb. 1 - July 31	Within one mile radius	
Coopers Hawk Nest	Feb. 1 - July 31	Within one-half mile radius	
Burrowing Owl Nest	Feb. 1 - July 31	Within one-half mile radius	
Merlin Nest	Feb. 1 - July 31	Within one-half mile radius	
Other Raptors	Feb. 1 - July 31	Within one-half mile radius	
Elk Feedgrounds	No surface occupancy	Feeding sites and buffer areas	15,600
Riparian Habitat	No surface disturbance	Within 500 feet	7,138[2]
Upper Green River Special Recreation Management Area	No surface disturbance		2,780
Historic Trails	No surface disturbance	Within ¼ mile or visual horizon (whichever is closer)	11,200
Floodplains	No surface disturbance, landfills, or disposal facilities; compliance with Executive Orders 11988 and 11990		26,220
Soap Holes Basin	Minimize surface disturbance	Soils, Watershed	20,000[3]
Cultural Sites	No surface occupancy		1,100
Recreation Sites	No surface occupancy No surface disturbance	On the site Within ¼ mile	585
Rock Creek ACEC	No surface occupancy	ACEC	4,200
Beaver Creek ACEC	No surface disturbance	Within 1,000 feet of the creek or on slopes of 25 percent or greater	3,548
Scab Creek Area	No activity		7,636
TOTAL			**591,858**

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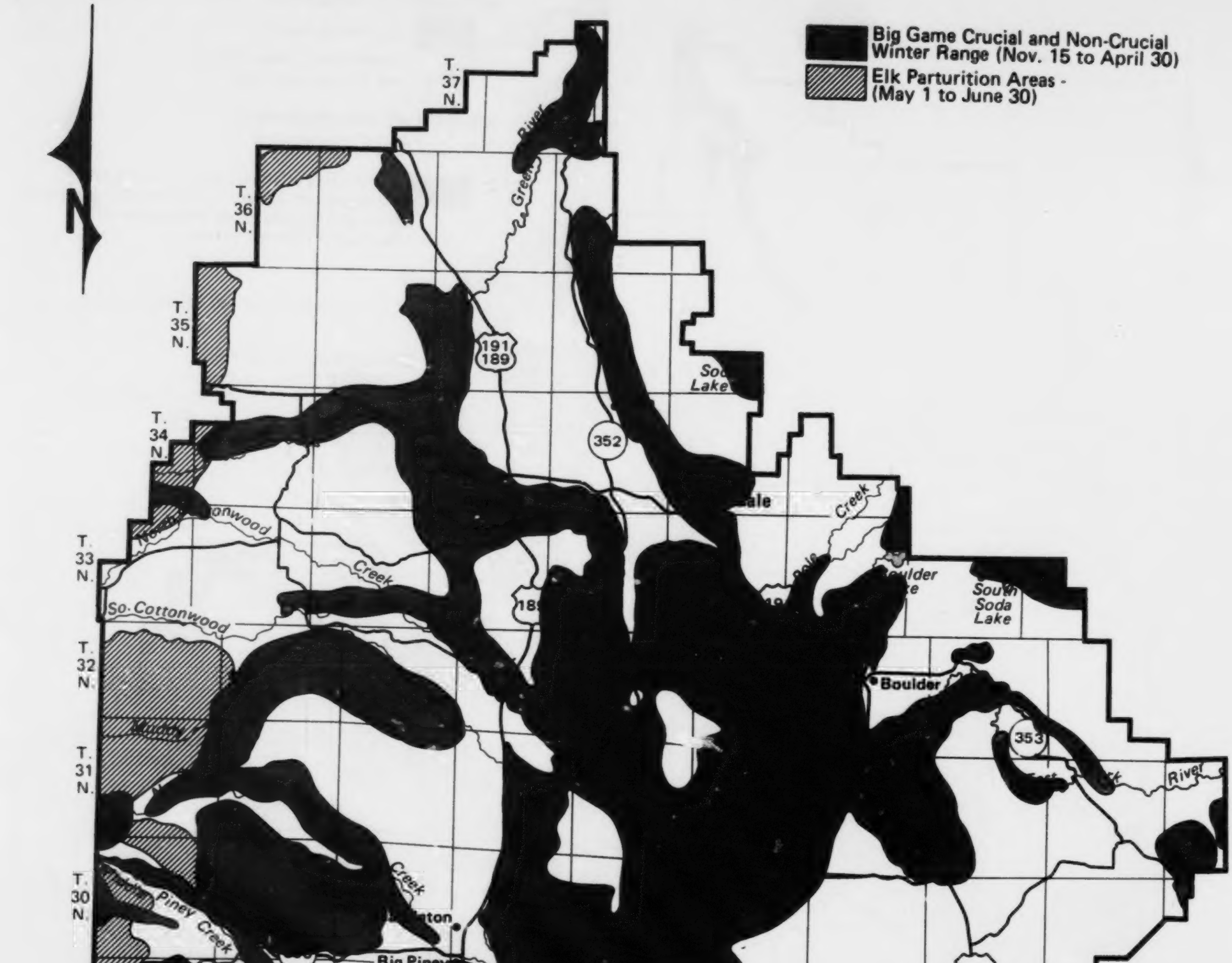
[1] Acreages do not total due to overlapping resource concerns.

[2] Actual riparian acreage, not including 500-foot buffer.

[3] Error in previous representation of Soap Holes acreage (1,992). The corrected acreage (20,000) agrees with the map in the FEIS.

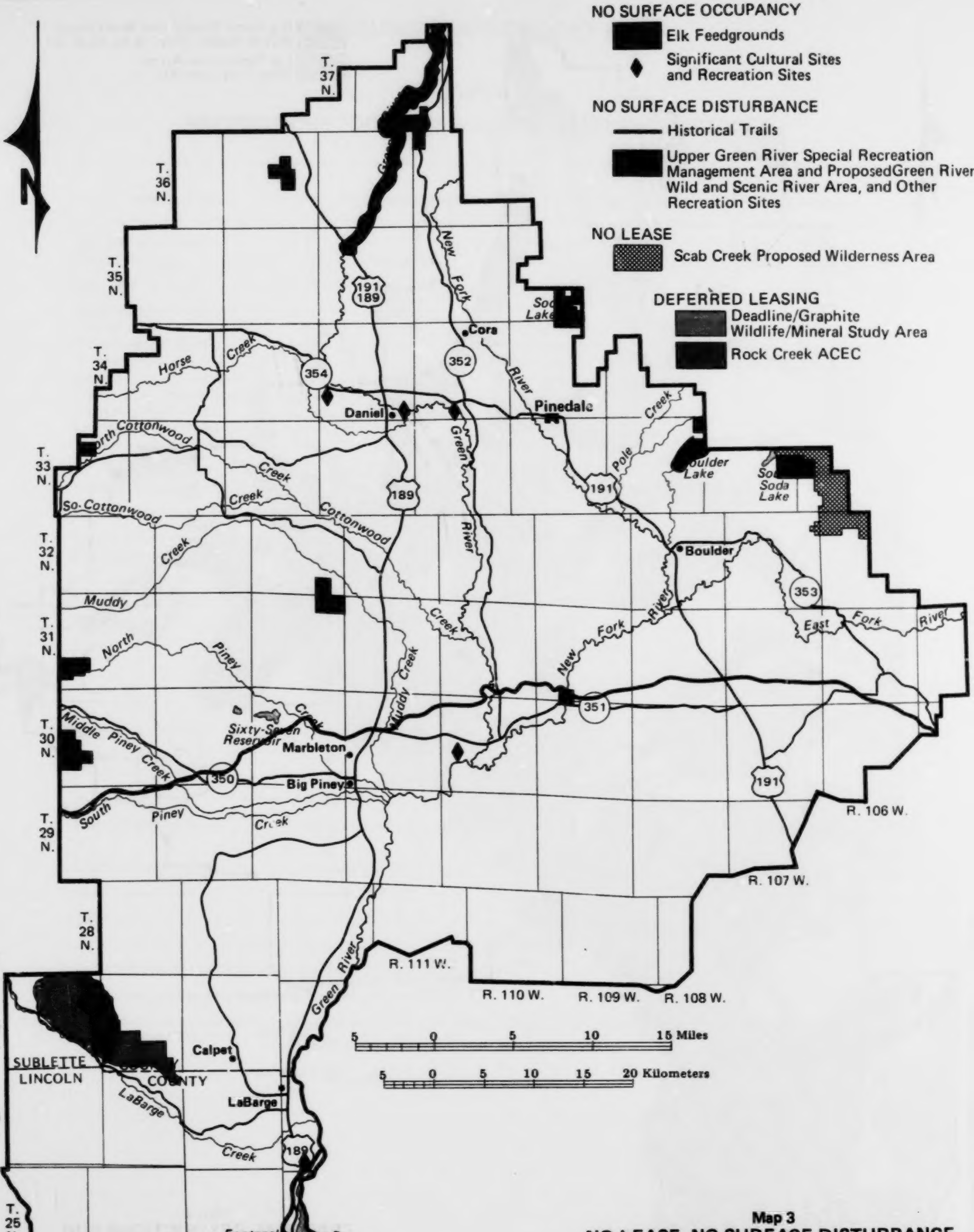


Map 2

SEASONAL RESTRICTIONS FOR SURFACE DISTURBANCE ACTIVITIES

(Big Game Crucial Winter Range and Elk Parturition)

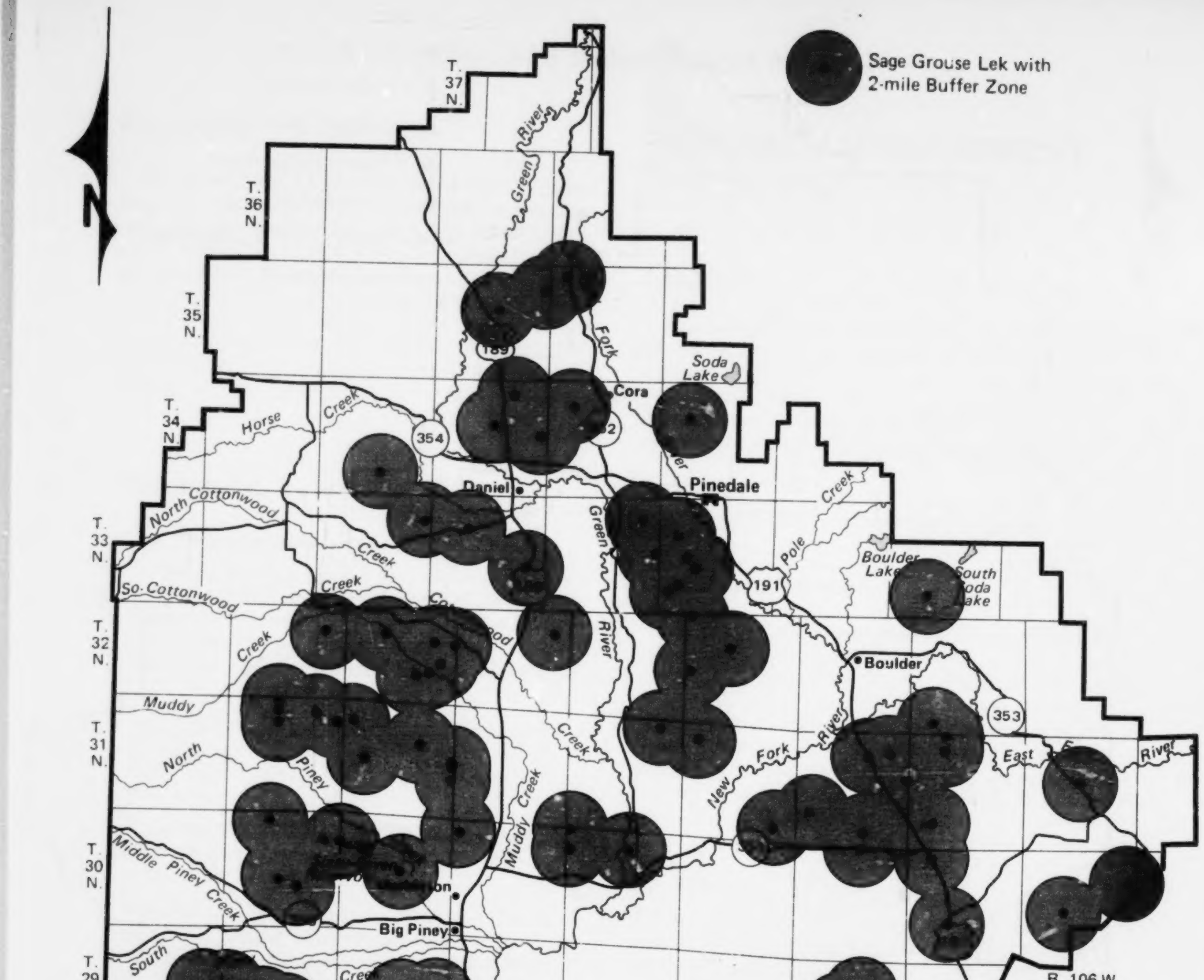
Pinedale Resource Management Plan



Map 3

NO LEASE, NO SURFACE DISTURBANCE, NO SURFACE OCCUPANCY, and DEFERRED LEASING AREAS

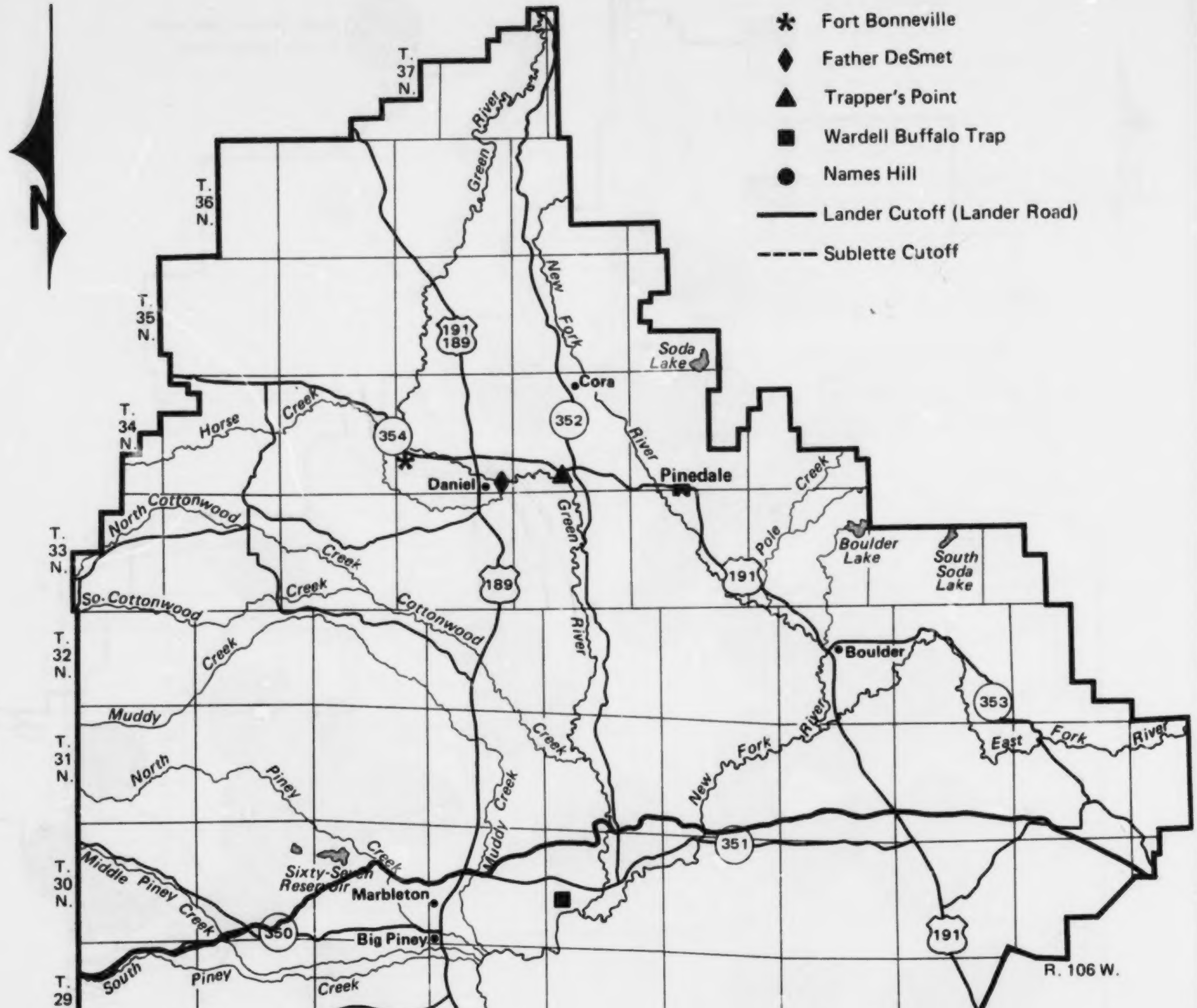
Pinedale Resource Management Plan



Map 4

SAGE GROUSE LEKS AND BUFFER ZONES

Pinedale Resource Management Plan



Map 5

HISTORICAL SITES AND TRAILS

Pinedale Resource Management Plan

Objective

Air quality will be maintained within or above required standards through cooperative management of emissions with industry, the State of Wyoming, and other federal agencies. Objectives will include the protection of public health and safety and the well-being of sensitive natural resources. The Bureau will strive to minimize, within the scope of its authority, any emissions which may add to acid rain, cause violations of air quality standards, or degrade visibility (see Appendix A-3).

Management Actions

The BLM will continue to:

Cooperate and coordinate with the Forest Service, Environmental Protection Agency, and State of Wyoming in monitoring for atmospheric deposition (acid rain) and its impacts on the Class I airsheds of the Bridger and Fitzpatrick wilderness areas;

Cooperate in the operation of the National Atmospheric Deposition Program (NADP)/ National Trends Network acid rain monitoring site; and

Cooperate in the collection of basic climate and meteorological data from remote automatic weather stations.

The data collected from the NADP/National Trends Monitoring site will be used to determine actual or potential impacts from air pollutant emissions and to provide information on proposed emission sources.

Special requirements to alleviate air quality impacts will be included on a case-by-case basis in use authorizations (including lease stipulations; Appendix A-1). Examples of such requirements would include: limiting emissions, spacing of source densities, requiring the collection of meteorological data, covering conveyors at mine sites (to lower dust emissions), and placing restrictions on flaring of natural gas (to reduce sulfur dioxide emissions). Specific guidance for the application of air quality protection measures is found in Appendix A-3.

MINERALS MANAGEMENT DECISIONS

Objective

The public lands and federal mineral estate will be made available for orderly and efficient development of mineral resources. All minerals actions will comply with goals, objectives, and resource restrictions (mitigations) required to protect the other resource values in the planning area.

Management Actions

Leasable Minerals

Generally, the planning area will be open to consideration for exploration, leasing, and development for all leasable minerals, which include oil, gas, coal, oil shale, and geothermal steam, in accord with all applicable provisions (e.g., restrictions, prohibitions). All activities will be conducted in accordance with the guidance for mitigation of surface-disturbing activities in Appendices A-1 and A-3.

Oil and Gas

The 7,636-acre Scab Creek area will be closed to oil and gas leasing. The remainder of the planning area (approximately 1,185,000 acres) will be open to consideration for leasing, exploration, and development of oil and gas.

Once an oil and gas lease has been issued, it constitutes a valid existing right and BLM cannot unilaterally change the terms and conditions of a lease. Therefore, in areas where oil and gas exploration and development activities are restricted or in areas closed to oil and gas leasing, an existing lease in the area would not be affected by the closure and restrictions cannot be added to the lease. Closures and additional lease restrictions could not be fully implemented until after a lease expires and new leases are issued for the same area. However, additional restrictions can be applied at the Application for Permit to Drill (APD) stage, and at subsequent development stages, that would mitigate potential impacts from oil and gas operations within existing lease areas so long as rights to develop the leases remain intact (Appendices A-1 and A-3).

The BLM will evaluate industry-proposed measures to protect health and safety through the drilling permit process (Appendix A-4). Of particular concern will be the requirements of approved contingency plans for hydrogen sulfide (H_2S) release. Requirements of operators could include conducting dispersion analyses to determine ambient H_2S concentrations during well blowouts, collecting onsite meteorological data, preparing detailed evacuation plans, and placing offsite warning signs.

The Riley Ridge Project Monitoring Program will be continued. Further monitoring will include gathering of geological data in the Deadline Ridge-Graphite Hollow crucial elk winter range to aid in preparation of the proposed activity plan. Monitoring will be coordinated with other resource monitoring programs such as wildlife, surface and ground water quality, grazing, and cultural resources, as appropriate.

Geophysical Exploration

Geophysical notices of intent will be evaluated on a case-by-case basis. All acreage in the planning area will be subject to various appropriate limitations (e.g., vehicle use restrictions), including about 517,170 acres subject to seasonal limitations. In addition, the use of explosive charges may not be allowed in any area if analysis determines that unacceptable adverse impacts would occur.

Generally, all authorizations will be issued with appropriate application of surface disturbance mitigation requirements as presented in Appendix A-1.

Specific limitations include:

Approximately 7,636 acres in the Scab Creek area will be closed to geophysical activities.

Areas closed to ORV use will also be closed to vehicle use for geophysical activities.

In the Beaver Creek Area of Critical Environmental Concern (ACEC), geophysical vehicles will be restricted to existing roads and trails.

Geophysical vehicle travel through developed and semi-developed recreation sites will be restricted to established roads and trails.

Geophysical activities in the remaining NSO areas (mostly cultural sites and elk feedgrounds) will be evaluated on a case-by-case basis and may be restricted if unacceptable impacts would occur to other resources (e.g., water quality, cultural, wildlife, recreation, and visual resource values).

Oil and Gas Leasing and Geophysical Activities in the Rock Creek Area of Critical Environmental Concern and Surrounding Area

The Rock Creek ACEC and surrounding area (about 17,000 acres) will be available for consideration for oil and gas leasing with appropriate stipulations, following the completion of an activity plan and associated environmental analysis.

That portion of the Rock Creek ACEC within the Rock Creek watershed boundary (Map 6) will be leased with a no surface occupancy (NSO) stipulation for protection of the pure strain of Colorado River cutthroat trout in Rock Creek (see Appendix A-1).

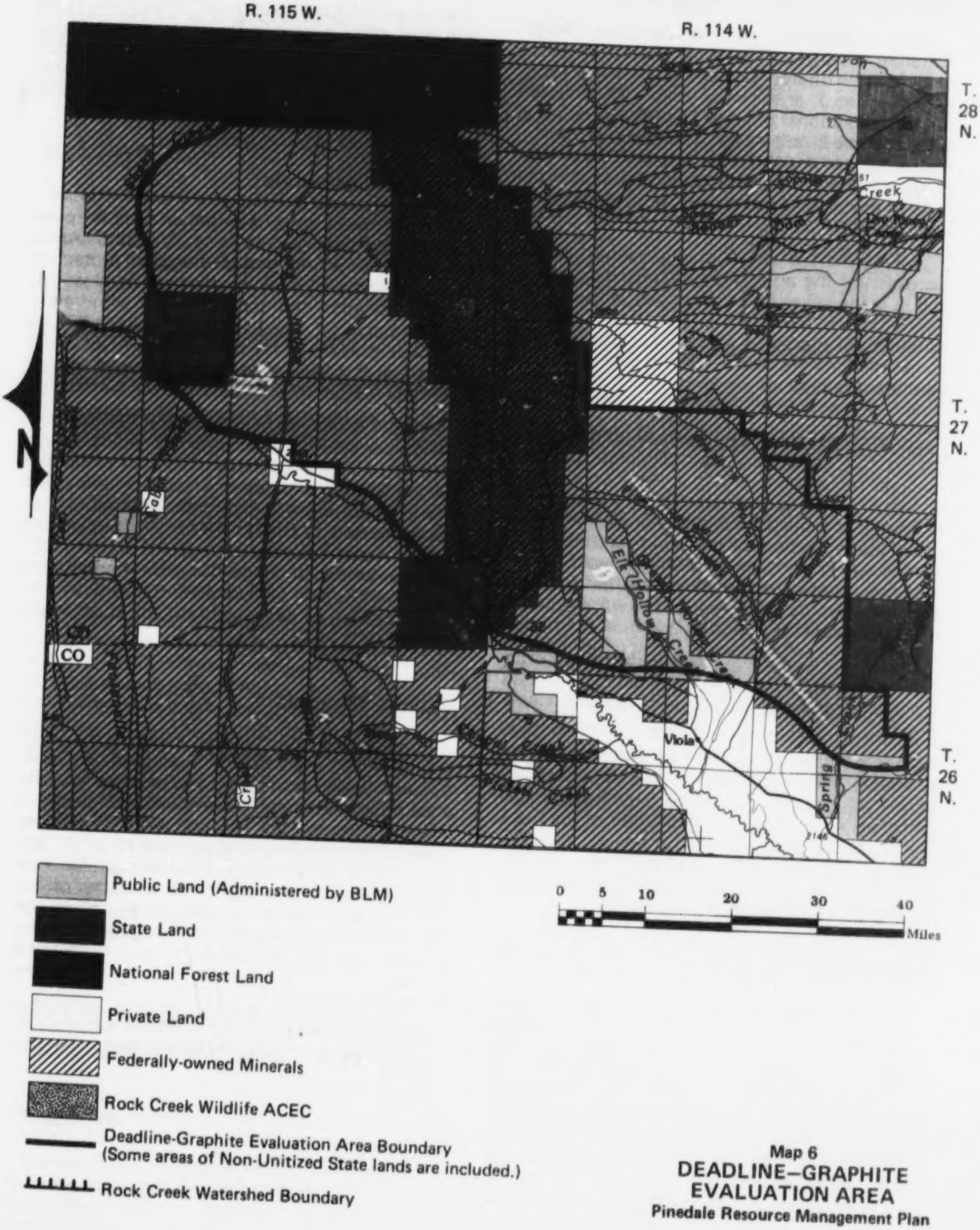
Leasing guidelines and objectives in the remaining parts of the Rock Creek ACEC and portions of the adjacent Deadline Ridge-Graphite Hollow crucial elk winter range will be established in a site-specific minerals/wildlife management plan (activity plan) and environmental analysis. This plan will include an evaluation of the ongoing elk habitat use study and compilation of geologic data (Map 6 depicts the evaluation area).

The plan will also include the following direction:

Oil and gas leasing direction, regarding related activities in the evaluation area east of the Rock Creek ACEC, will be designed to ensure continued elk winter use in the Deadline Ridge-Graphite Hollow area. Oil and gas development will be allowed if determined to be compatible with continued elk use of the crucial winter range. No substantial adverse impacts to this elk habitat will be allowed.

Oil and gas leasing direction, regarding related activities in the evaluation area west of the Rock Creek ACEC, will be guided by the RMP multiple use guidelines and objectives. Evaluation may allow for some development on this portion of the crucial elk winter range, as long as RMP planning objectives are met.

The Deadline Ridge-Graphite Hollow wildlife/leasing study and activity plan will identify any suitable areas for surface occupancy based on the previously mentioned mineral leasing guidelines and objectives. Any requests for relief from leasing restrictions which are in conflict with these guidelines and objectives will be analyzed on an individual basis. Based on the analysis, either the conflicting actions would be



Map 6

DEADLINE–GRAPHITE EVALUATION AREA

Pinedale Resource Management Plan

denied or a plan amendment would be initiated to modify the plan objectives.

Upon completion of the Deadline Ridge-Graphite Hollow activity plan, large contiguous areas may be offered for lease with the NSO stipulation. These areas may only be accessed through directional drilling. The NSO stipulation would be used, rather than a no lease provision, under the assumption that industry is the best judge of whether technology would enable access to the oil and gas resources in compliance with the terms of the lease.

Leasing with the NSO stipulation could become necessary if the area is characterized by steep, and in many cases unstable slopes, with stream/riparian zones "filling" the valley bottoms. Any disturbance on the steep slopes or in the riparian zone threatens the crucial elk and cutthroat trout habitats directly.

Leasing with the NSO stipulation could also become necessary if deep gas is of primary interest in the evaluation area. Drilling to these reserves requires more than a year's time, which appears to make seasonal restrictions inadequate mitigation to protect the wildlife values. The objective of the evaluation will be to find potential areas for deep drilling access while still protecting wildlife values. Input from industry as well as from concerned public groups or individuals will be sought for this evaluation.

Leasing with an NSO restriction may occur prior to completion of the evaluation in those areas where drainage of federal oil or gas is occurring.

That portion of the Rock Creek watershed boundary within the Rock Creek ACEC (4,200 acres) will be open only to portable geophysical activities. Activities in the remainder of the Rock Creek ACEC (outside the drainage, approximately 1,000 acres) will be evaluated on a case-by-case basis and may be restricted if analysis determines that restrictions are necessary.

Other Leasable Minerals

Should interest in other leasable minerals materialize in the future, leasing will be considered on a case-by-case basis, and the RMP will be amended as appropriate and necessary. The same surface-disturbance restrictions presented in Appendix A-1 will be used in analyzing leasing proposals and determining the issuance of any leases (e.g., geothermal steam, coal, sodium, oil shale, phosphate).

The existing withdrawals for phosphate, coal, and oil shale will be revoked. These mineral resources no longer need such protection as they are now made available for development under mineral leasing regulations. Mineral leases, other than oil and gas, will be subject to the same resource constraints as established for other surface-disturbing activities.

Locatable Minerals

With the exception of withdrawn lands, the planning area will be open to mineral location. Areas identified in the future as needing total protection from locatable mineral activities will be closed to mineral location and considered for withdrawal. For example, if analysis of the Rock Creek drainage portion of the Rock Creek ACEC indicates that this level of protection is necessary, a withdrawal from mineral location will be initiated on the area (approximately 4,200 acres).

Surface-disturbing activities on mining claims require a notice submitted to BLM for a cumulative surface disturbance of 5 acres or less and a plan of operations for disturbances of more than 5 acres as outlined in 43 CFR 3809. In designated special management areas, such as areas of critical environmental concern, a plan of operations is required for any surface disturbance activities, regardless of acreage involved, in accordance with 43 CFR 3809.

Salable Minerals

Applications for mineral sales (e.g., sand, gravel) will be analyzed and processed on a case-by-case basis and appropriate surface disturbance mitigation requirements will be included in permits (Appendices A-1 and A-3). The established common use area in sections 15, 22, 27, and 34, T. 27 N., R. 115 W., will remain available for development. However, those portions of the common use area in sections 15 and 22 will be managed under the Interim Management Policy and Guidelines for Lands Under Wilderness Review until Congress acts upon the wilderness recommendations.

Regular field monitoring of salable mineral permit areas will be conducted to ensure permit compliance.

NATURAL HISTORY AND PALEONTOLOGICAL RESOURCES MANAGEMENT DECISIONS

Objective

Natural history and paleontological resource values will be managed to protect and preserve representative samples of these values that are present in the planning area.

Management Actions

Paleontological sites will be protected through the use of surface and subsurface protection stipulations and discretionary management authority. Any actions to close or restrict areas for fossil protection will be evaluated on a case-by-case basis. All collection of vertebrate fossils requires a paleontological collection permit. Collection of invertebrates and plant fossils "of significant interest" requires a collection permit. Permits are required for mapping and reconnaissance work as well as for collection and(or) evaluation work.

As areas of unique natural history or particular natural interest are identified, they will be nominated for designation as National Natural Landmarks, Research Natural Areas, or areas of critical environmental concern and managed for protection of the unique values. Interpretation of the natural features and public use will be emphasized.

The Pinedale-Boulder Glacial area has been proposed for designation as a National Natural Landmark (NNL). The area will be studied in conjunction with the Forest Service to determine applicability of the designation. Should the designation occur, the site will be managed to protect the unique geological and ecological features and provide for public interpretation of these features.

SOILS AND WATERSHED MANAGEMENT DECISIONS

Objective

Management objectives will be to maintain or enhance the quality of surface and ground water. Watersheds will be managed to maintain or improve channel stability and overall watershed conditions.

Soil conservation will be provided through managing for maintenance of soil productivity and stability.

Management Actions

Management actions will emphasize the reduction of soil erosion and sediment and salinity contributions to the Green River Basin water system. Practices applied to surface-disturbing activities to help achieve this are found in Appendix A-3. Of particular importance will be those areas with highly saline soils such as the Soap Holes Basin and crucial watersheds where surface disturbance will be minimized. These crucial watersheds are generally found within the boundaries of the ground water recharge zones (Map 7).

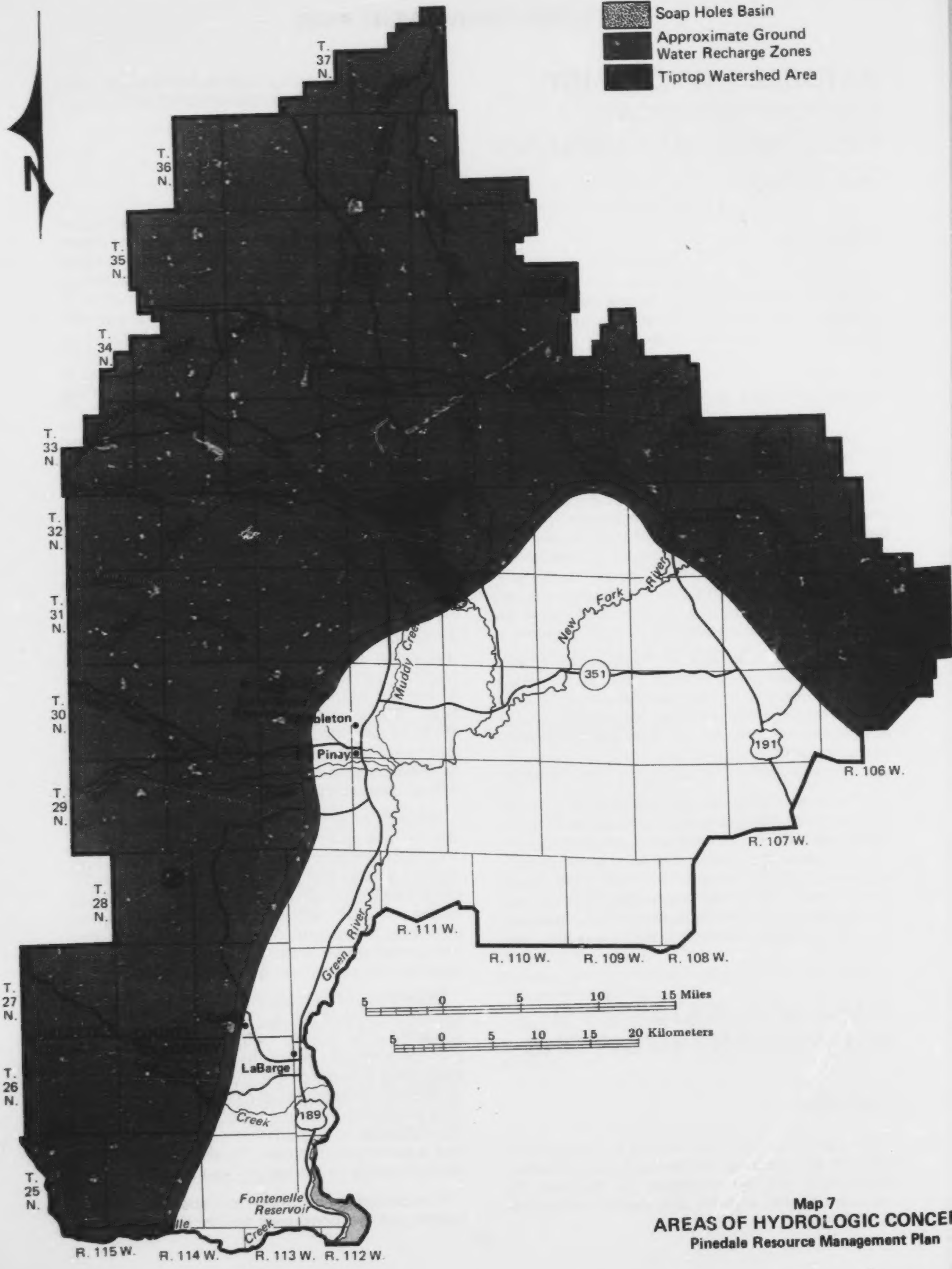
Corrective measures to be applied wherever unsatisfactory watershed conditions are identified will be developed and implemented through activity plans (e.g., watershed, habitat, allotment, or timber management plans). Such measures will also be implemented through stipulations attached to permits, leases, and other authorizations.

The Wyoming BLM Standard Mitigation Guidelines for Surface-Disturbing Activities (Appendix A-1) and the standard practices applied to surface-disturbing activities (Appendix A-3) are used to control nonpoint sources of water pollution. These are examples of best management practices (BMPs) relative to the Clean Water Act of 1972, as amended. As other BMPs for nonpoint sources of water pollution are developed, they will be incorporated into the guidance for this plan where they conform with the RMP objectives.

Projects proposed on BLM-administered lands will be evaluated on a case-by-case basis for affects on soil and water resources. Soil management practices will be applied on a site-specific basis using soil survey data, and will be related to the soil characteristics such as the steepness of slopes, the length of slope, and soil chemistry and composition. Watershed management practices will follow similar guidelines.

Examples of management practices to be applied throughout the resource area include seasonal closures due to saturated soil conditions and the standard practices applied to surface-disturbing activities (Appendices A-1 and A-3). (At certain times of the year, use will be precluded until soil moisture is such that the use or activity will not result in degradation of the soil resource and watershed condition. These closures occur predominately in the spring and autumn.)

A monitoring program for specific surface waters will be continued to identify trends on



Map 7

AREAS OF HYDROLOGIC CONCE

Pinedale Resource Management Plan

water quality. Public drinking water at recreation sites will also be protected and monitored to be in compliance with EPA safe-drinking water standards.

A Level II ground water study of the Riley Ridge/LaBarge area will be completed to define the ground water resource and to determine what additional ground water monitoring and protective measures are necessary in regard to subsurface activities conducted in the area (e.g., oil and gas drilling activities).

Ground water protection will continue to be provided by applying the procedures described in Appendix A-5. Special precautions will be taken to ensure protection of ground water quality when surface disturbance is to occur on ground water recharge zones (Map 7). Criteria for determining depth of fresh water are found in Appendices A-4 and A-5.

An activity plan for reducing erosion and channel degradation will be prepared for the Tip Top watershed (Map 7). Specific actions could include road maintenance, recontouring, and reseeding of disturbed sites to help achieve soil stabilization.

A watershed/recreation plan will be prepared on the Stuart Point-Mount Airy area for reducing sedimentation while still allowing off-road vehicle (ORV) use. A more detailed description of this area can be found in the ORV section.

All actions will comply with Executive Orders 11988 Floodplain Management and 11990 Protection of Wetlands, and the State of Wyoming Department of Environmental Quality water quality standards.

WILDLIFE HABITAT MANAGEMENT DECISIONS

Objective

To the extent practicable, wildlife habitat management will be oriented toward the maintenance of fish and wildlife habitats to support populations at 1987 Wyoming Game and Fish Department planning objective levels. Activity planning will emphasize habitat enhancement and protection. Changes within Wyoming Game and Fish Department planning objective levels will be considered, based on habitat capability and availability.

Wildlife habitat activity planning will include other species as well as federally listed threatened and endangered species and the Colorado River cutthroat trout.

Management Actions

In the Deadline Ridge-Graphite area, management emphasis will be placed on maintaining crucial elk winter habitat.

In elk feedgrounds, management emphasis will be on maintenance of habitat quality and continued use of the areas as elk feedgrounds. To maintain the integrity of the elk feedgrounds, certain activities would be constrained on lands near them. The NSO restriction (Appendix A-1) would be imposed on the lands described in Appendix A-2, for all activities except those which have impacts that are temporary in nature or that are compatible with elk habitat management.

Threatened and endangered (T&E) species and their habitats will be protected. Actions which would degrade habitat to a point of jeopardizing the continued existence of a T&E species will not be allowed.

The U.S. Fish and Wildlife Service (USFWS) will be consulted on any action with reasonable potential to affect endangered species or their habitats. A biological assessment will be prepared on all proposals where T&E species habitat will or may be affected and a biological opinion will be requested from the USFWS.

All actions will include consideration for T&E plant and animal species. The Pinedale Resource Area will continue to be inventoried to identify potential habitat and occurrence of T&E species. Identification of habitat occupied by T&E species and habitat with potential to help support these species would be managed in accordance with the national recovery plans. Potential habitat includes high density prairie dog towns for black-footed ferrets, wetlands for whooping cranes, high cliffs over riparian zones for peregrine falcons, and cottonwood stands along the Green, New Fork, and East Fork rivers for bald eagles. Management prescriptions for potential habitat will include consideration for future occupancy by T&E species. Key habitat characteristics will be identified to help ensure maintenance of high quality areas for natural reoccupation. Proposals for introductions of plant and(or) animal T&E species on BLM-administered lands will be evaluated and analyzed, considering the impact of other activities.

Habitat occupied by federally listed T&E plant and animal species will be monitored to ensure compliance with the Endangered Species Act. The Colorado River cutthroat trout (a Category 2 species) will be monitored in cooperation with the Wyoming Game and Fish Department.

Areas with habitat having potential to support transplanted or introduced wildlife species (other than T&E species) will be identified in the development of activity plans and managed in accordance with the RMP objectives. Proposals for introductions or species transplants to BLM-administered public lands will be evaluated and analyzed, and the impact to and of other resources will be considered. Cooperative agreements will be developed, if necessary, to facilitate species transplants and habitat management.

Mule deer, elk, antelope, and sage grouse use patterns will be monitored. Habitat trend for the species will be interpreted through survey data collected, in cooperation with livestock and watershed studies and monitoring activities. Interdisciplinary selection of key areas and plant species will ensure that crucial habitats are monitored.

The East Front Aquatic Habitat Management Plan (HMP) will be implemented to promote riparian habitat management and protect the Colorado River cutthroat trout. In addition, this HMP and the Upper Green River HMP will include consideration of habitat improvement and related projects for enhancing habitat for waterfowl and aquatic species.

Riparian area maintenance, improvement, and restoration will help promote quality fish habitat on streams and lakes. Coordination with WGFD will continue on the Comprehensive Management and Enhancement Plan for the Colorado River cutthroat trout in Wyoming to improve habitat and expand the range of these trout so they are no longer in threat of extinction. Efforts to control siltation into the East Fork and New Fork rivers will be pursued to improve the water quality of these fisheries. Water Quality Standards for other fishing streams and lakes will be coordinated with WGFD and the State Department of Environmental Quality. Adherence to these standards will help maintain existing fish habitat.

High priority will be given to improvement of wildlife habitat through vegetation manipulation. Table 2 presents identified opportunities by vegetation type and animal species seasonal habitat. Any areas identified in the future as suitable for treatment to benefit wildlife will be considered.

TABLE 2

VEGETATIVE MANIPULATION OPPORTUNITIES (By Prescribed Burn)

Vegetation Type	Species Benefitted	Treatment Objectives
Sagebrush/Grass	Elk	Increase volume of grass forage on winter range
	Mule deer	Increase early green forage on spring/fall range
	Antelope	Increase plant diversity and forb component on summer range
	Sage grouse	Same as antelope
Aspen-Aspen/Fir Complex	Elk	Stimulate aspen regeneration and set back subalpine fir invasion to perpetuate aspen stands in spring/summer range
	Mule deer	Same as elk
Willow Bottoms	Moose	Increase willow regeneration in critical moose habitat

Vegetation treatments for livestock grazing and other resource objectives will include consideration of wildlife objectives and related restrictions. Table 3 describes restrictions for vegetation manipulation necessary to provide protection for wildlife in sagebrush types.

Habitat will also be enhanced by other improvements, such as development of water facilities. During development and implementation of activity plans (e.g., allotment, timber, watershed, or wildlife habitat management plans), consideration of habitat improvement needs and locations

TABLE 3

HABITAT GUIDELINES FOR BRUSH CONTROL

Habitat Classification	Guideline
Sage grouse breeding complex (that area within a two-mile radius of an active strutting ground).	Maximum of 20 percent of sagebrush type treated at any time.
Percentage restriction to be applied on each individual lek or complex of leks within contiguous buffer areas.	
Crucial antelope, mule deer, and sage grouse winter and winter yearlong range.[1]	No treatment unless beneficial to antelope, mule deer, and sage grouse.
Crucial elk winter range and winter yearlong range.[1]	Maximum of 40 percent of sagebrush type treated at any time.
Antelope, elk, moose, mule deer, and sage grouse winter, winter/yearlong, and summer habitat.[1]	Maximum of 20 percent of sagebrush type treated at any time.

[1] Percentage restrictions are applied to individual fire management units as designated on Map 14. Restricted wildlife ranges are depicted in the Affecd Environment of the Draft RMP/EIS on Maps 22 through 26.

Basic Assumptions:

1. If new information indicates that wildlife would benefit from sagebrush treatment at higher levels than indicated through this process, upper levels would be adjusted accordingly.
2. In cases of seasonal range overlap, the most restrictive constraint would be applied.
3. When previously treated sagebrush areas return to a sagebrush canopy cover of 25 percent or greater, they would be considered untreated and would be added to the base acreage available for future treatment proposals.
4. Specific project design and mitigation would be developed during the activity planning phase.
5. Although only game species habitat is specified, consideration for other species associated with the sagebrush communities is built into the treatment constraints.
6. The maximum acreage available for treatment encompasses the entire vegetation type acreage in the area.

will be included. Waterfowl habitat will be considered for enhancement through improvements, specifically the Upper Green River HMP and East Front Aquatic HMP update, will provide waterfowl and fisheries habitat improvement projects. Road closures may be imposed to protect fisheries and elk habitat. The Wyoming Game and Fish Department is conducting a study of big game response to oil and gas development on the Riley Ridge natural gas project area. Findings and recommendations from this study will be used in considering future development of minerals on big game ranges (Appendix B).

Predator control programs will be coordinated with the U.S. Department of Agriculture and conducted in accordance with the Rock Springs District Animal Damage Control Plan.

LIVESTOCK GRAZING MANAGEMENT DECISIONS (RANGELAND PROGRAM SUMMARY)

Objective

Vegetation will be managed to maintain or improve ecological range condition, and to maintain or increase forage for livestock grazing, while providing for the maintenance or improvement of wildlife habitat, watershed values, and riparian areas.

Objectives of the livestock management program in riparian areas will include maintenance, restoration, and improvement of riparian values where livestock grazing has contributed to riparian management problems.

Management Actions

Grazing Preference

Forage will be made available for livestock grazing use. Management will also provide for protection or enhancement of other resource values. The current seasons of use, kinds of livestock, and amount of grazing use will continue until monitoring indicates a modification can be accommodated, or is necessary. The current grazing preference objective of l07,907 animal unit months (AUMs) (Appendix C-1) will be maintained or increased through implementation of allotment management plans (AMPs), range improvements, and vegetation manipulation. If these measures fail to provide the grazing preference objective, while providing for protection of other resource values as established in the plan, livestock reductions may become necessary. Any adjustments in livestock grazing use will be made as a result of monitoring and in consultation with grazing permittees and other affected interests.

All developed and semi-developed recreation sites will be closed to livestock grazing.

Unallotted Public Lands

The 20,991 acres of unallotted forage on public lands will be considered for allocation on a case-by-case basis in accordance with RMP goals and objectives. The number of AUMs to be allocated will be determined after the lands have been evaluated.

Stock Trails

Adequate stock trails will be maintained to support livestock trailing needs.

Elk Winter Range

Adequate forage for wintering elk will be provided to the extent possible (population levels based on Wyoming Game and Fish Department 1987 population objectives) in the Bench Corral, Miller Mountain-Fort Hill, Riley Ridge, and Graphite elk winter ranges.

In cases where adequate forage for wintering elk is not available, adequate forage could be provided through a combination of management practices, including livestock grazing systems, grazing adjustments, and vegetation manipulation.

Livestock water developments on crucial elk winter ranges will only be allowed if they do not result in adverse impacts to the crucial range.

Allotment Management Plans

All allotments have been placed into a category based on the established criteria in Appendix C-2. As resource conditions change, and following consultation with the affected parties, an allotment may change from one category to another. Initial categorization is 41 I allotments, 141 M allotments, and 26 C allotments.

New allotment management plans (AMPs) will be written and implemented on I allotments (current list of priority shown in Appendix C-3). Existing AMPs on I allotments will be modified to meet livestock objectives and incorporate wildlife and watershed objectives to be attained through livestock management. Existing AMPs on M category allotments will not be modified, unless monitoring and evaluation indicate a change in management is needed. New AMPs or activity plans will require environmental analyses.

All grazing systems will be designed to maintain or improve plant diversity. Specific objectives will be determined during AMP preparation to provide forage diversity for antelope, mule deer, and sage grouse as well as livestock. Grazing systems will be designed to limit forage competition for forbs and other desirable plants, particularly in the spring of the year.

Interagency Cooperative Management Plans

Any cooperative allotment management plans prepared with other agencies, such as the Forest Service and Soil Conservation Service, will be consistent with this land use plan.

Range Improvements

New range improvements will be implemented on I category allotments as first priority. The range improvements on M and C category allotments will be funded as priorities allow, or they could be implemented with other funds from permittees, other agencies, or grazing boards. First priority within M and C allotments will be given to projects that have contributed funds. New range improvements (e.g., vegetation manipulation, water developments, and fencing) will be designed to the extent possible to meet multiple use objectives for all resources. The maintenance responsibility of range improvements will be assigned to the benefiting users. The maintenance and reconstruction of range improvements will be accomplished as needed.

Approximately 98,552 acres have been identified as suitable for vegetation manipulation to increase forage production in the I and M allotments. Brush control guidelines (Table 3) will be applied to acreages determined suitable for vegetation manipulation (Appendix C-3). The acreage figures in Appendix C-3 were derived from computer-generated data (Geographic Information System and satellite imagery), which overlayed crucial wildlife ranges and areas with greater than 35 percent brush canopy.

The acreage displayed for each allotment (Appendix C-3) is considered a target figure for potential range improvements. Development of AMPs and other activity plans will further refine the acreage according to livestock grazing, wildlife, and other resource objectives. Some allotments have very small acreages available for treatment. Because of the high cost of treating such small areas, they are not likely to be treated. Other allotments containing large acreages may not receive the total projected treatment due to resource considerations (e.g., sage grouse nesting areas and erodible soils) (Table 3). Acreage of brush control may increase or decrease on certain allotments depending on rangeland management needs addressed in AMPs and other activity plans.

All brush control projects will involve site specific environmental analysis; coordination with affected livestock operators and the WGFD; and will include multiple use objectives for other resource uses including livestock, wildlife, and watershed.

Vegetation manipulations in I allotments will be financed by BLM monies and other monies, if available. BLM range improvement monies will generally not be used to finance vegetation manipulations in M allotments until all the range improvements are accomplished in I category allotments. The vegetation manipulations in M category allotments could be financed by other sources such as permittees, other agencies, or grazing boards.

Prescribed fire will generally be the preferred method of vegetation manipulation for the conversion of brushland to grassland. Wildfires occurring in areas with a fire prescription will be allowed to burn as long as they remain within the prescriptions and meet land use objectives. Other vegetation manipulation methods will be considered on a case-by-case basis.

All new project development will be required to meet the criteria in Appendix C-4 and Appendix C-5. Range improvements will be done in accordance with RMP and activity plan objectives and priorities. Total project needs will be considered for each allotment before public funds are spent. A cost/benefit analysis will be completed on an allotment basis before range improvements are constructed with government funding.

To reduce streambank degradation, salt blocks for livestock and wildlife use will not be placed within 500 feet of live water, wetland, or riparian areas, unless activity plans show that it is necessary to meet management objectives.

Forage Increases

Any forage increases realized from management prescriptions and range improvement practices will be allocated to wildlife, watershed, and livestock. Site specific objectives for wildlife, watershed, and livestock grazing will be developed to identify each resource use to receive a forage allocation.

Actual forage allocation from forage increases will be based on site specific analysis and must conform to the multiple use objectives of the activity plans. The allocation of forage resulting from treatments financed by permittees, as in M category allotments that do not have crucial wildlife ranges, will be evaluated on a case-by-case basis. More forage may be allocated to livestock grazing than to other resource uses, in accordance with the current federal grazing regulations, including consistency with the multiple use management objectives set forth in this document.

Consultation with the affected parties will be necessary at the outset of planning for the project allocating increased forage to ensure satisfactory proportioning of the additional forage.

Combining and Splitting Allotments

Any combining or splitting of allotments to meet management objectives will be consistent with this plan. Such actions will include consultation and coordination with the affected parties.

Rangeland Monitoring and Evaluation

Monitoring of the range and the vegetation resource will be conducted at a level sufficient to detect changes in grazing use, trend, and range conditions. These data will be used to support and direct grazing management decisions consistent with national policy (Appendix C-6). Ecological range site condition mapping will be completed.

Conversions in Kind

Conversions from one type of livestock to another will be evaluated on a case-by-case basis, including an environmental analysis, and will be allowed if in conformance with the goals and objectives of the RMP. Conversions from cattle to sheep will generally not be allowed on the crucial antelope and deer winter ranges.

Noxious Weeds

Noxious weeds will be controlled through continuation of the existing noxious weed program within the resource area. The authorization of and guidelines for noxious weed control are documented in the *Northwest Area Weed Control Program EIS* (USDI 1987a).

RIPARIAN MANAGEMENT DECISIONS

Objective

Management objectives will be to maintain, improve, or restore riparian values to provide enhanced forage, habitat, and stream quality.

Management Actions

Priority for riparian management will be given to those areas identified as Colorado River cutthroat trout habitat. Management actions may include reductions in livestock numbers, adjustments in grazing distribution patterns, fencing, herding, livestock conversions, etc. Unallotted public lands containing riparian areas will be managed according to the same objective, with emphasis on wildlife and watershed objectives, but not necessarily to the exclusion of livestock uses.

Refer to management actions described under all other programs for accomplishing riparian objectives. Riparian management is an integral part of all resources and related management programs. Those activities that affect or are affected by riparian values, will take into account the riparian objectives and direction. Resource values and uses that affect or are affected by riparian values include: wildlife and fisheries habitat, forest resources, livestock grazing, ORV use, visual resources, cultural and historical resources, minerals exploration and development activities, lands and realty activities, watershed and soils resources, recreation uses, fire management, and access.

WILD HORSE MANAGEMENT DECISIONS

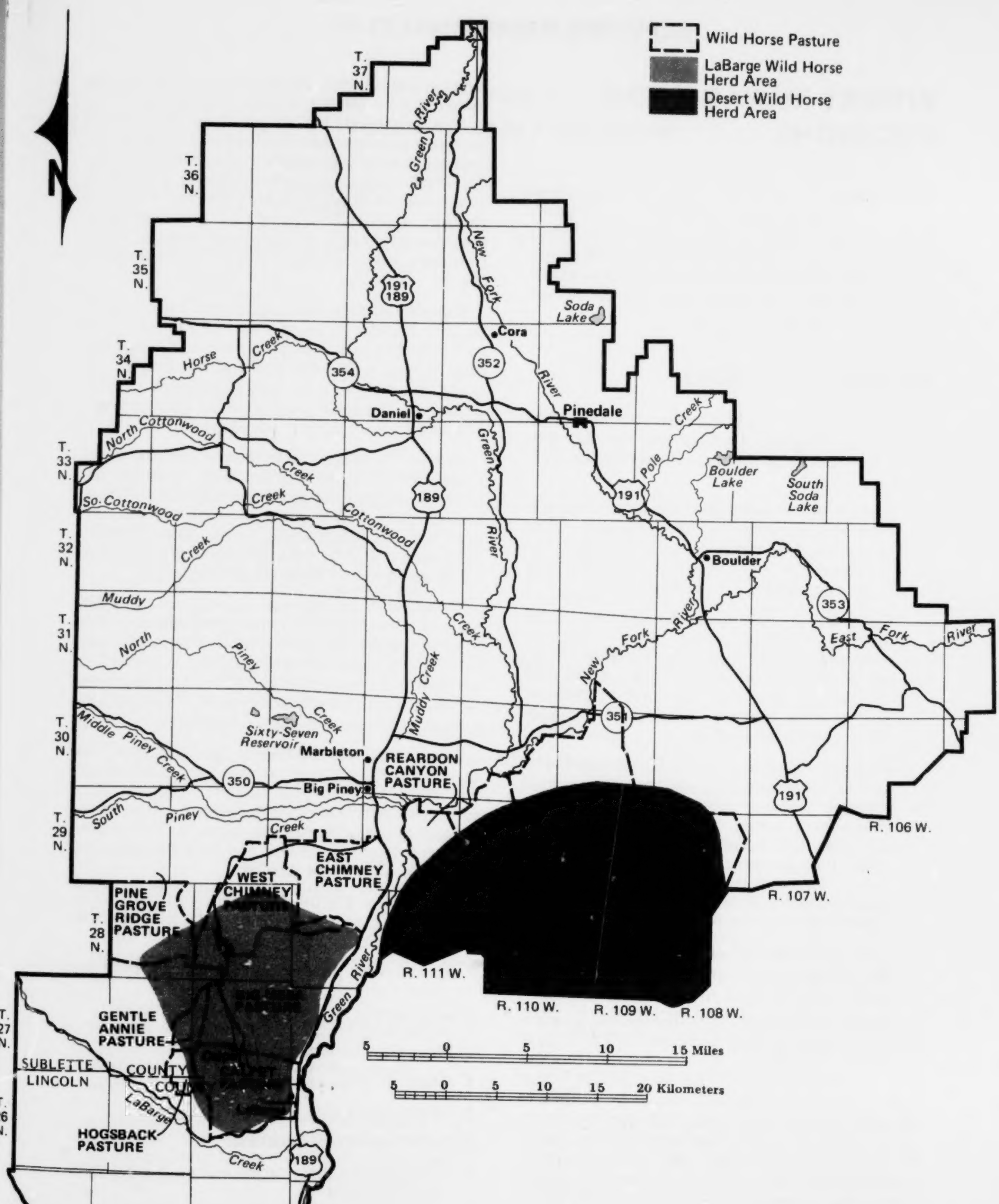
Objective

The management objective will be to resolve conflicts for water and forage between wild horses and other resource uses.

Management Actions

All wild horses will be removed from the the resource area and made available for adoption through the BLM Adopt-A-Horse Program. The wild horse herd areas (Map 8) will no longer be utilized by wild horses.

No forage will be allocated for wild horses in the Desert and LaBarge Herd areas. Wild horse roundups will be conducted in the Desert and LaBarge areas.



Map 8

WILD HORSE HERD AREAS (1971)

Pinedale Resource Management Plan

FOREST MANAGEMENT DECISIONS

Objective

Forest resources will be managed to provide a supply of forest products to the various segments of the public (individual and commercial vendors) and to maintain or enhance other resource management objectives.

Management Actions

Consistent with forest management and other resource management objectives, the forested lands are classified into four management categories:

> Category 1, Intensive Management, will include areas where the forested lands would be managed for multiple-use, but with emphasis placed on forest product utilization and forest management activities.
>
> Category 2, Restricted Management, will include forested lands where wildlife, watershed, and recreation resource values will be emphasized and actions such as partial cutting, extended forest crop rotations, etc., or other restrictions to forest management, would be applied.
>
> Category 3, Management to Enhance or Maintain Other Resources, will only allow forest management activities (e.g., harvesting or thinning) on lands in this category when such activities will benefit resources or values other than forestry or will promote public safety. All forest lands included in this category are not included in the forest management base or in timber harvest calculations.
>
> Category 4, No Forest Management, includes all areas where forest management is excluded.

Table 4 shows the acreage distribution by management category. Approximately 24,223 acres of commercial conifer would be available for production of forest products. Of this 24,223 acres, approximately 20,836 acres would be subject to harvest method/equipment use and minimum cover level restrictions (Category 2). The remaining 3,387 acres would be unrestricted, except for general forest management guidelines applicable to all forest management activities (Category 1). Approximately 13,506 acres of woodland (Categories 1 and 2) will be available for forest product disposals on a demand basis. An additional 3,113 commercial conifer and woodland acres will be removed from the forest base (Categories 3 and 4). The 1,611 acres in Category 3 will be available for forest management activities when such activities are deemed necessary to maintain the integrity of the resource being protected (e.g., wildlife, watershed) or to promote public safety. All forest lands in categories 1, 2, and 3 will be available for emergency salvage of timber damaged or killed through insects, disease, wildfire, or other such events.

Forested lands in Categories 1 and 2 will be managed to harvest an estimated 18.2 million board feet of timber over a 20-year period. Average annual harvest level will involve approximately 137 acres, but may vary to meet individual sale area objectives, depending on proposed harvest methods and individual sale conditions.

Sales of forest products (sawtimber, firewood, Christmas trees, posts, poles, and wildlings) will be made available to individuals and to commercial vendors. Forest product sales will be conducted on all forest areas, except where specifically excluded (e.g., the Rock Creek drainage and 7,636 acres in the Scab Creek area).

In addition to harvest, approximately 1,200 acres of precommercial thinning will occur during the 20-year period (USDI 1985a). Precommercial thinning projects will generally be designed to achieve an 8-foot spacing (e.g., roughly 680 trees per acre would be left uncut) and should not significantly affect cover levels (Table 5).

Specific harvest and thinning sequences will be established in a forest management plan, which will establish a 20-year harvest schedule. Any forest management plans developed will be coordinated with adjacent landowners, the Forest Service, the Wyoming Game and Fish Department, and other interested parties.

Specific items to be addressed in any individual timber sale plan and environmental assessments will include:

1. Approximate harvest units and proposed harvest methods.
2. Existing road locations.
3. Proposed new roads.
4. Roads to be closed.
5. Harvest acreages.
6. Environmental mitigations.
7. Coordination with other resource programs and interests.

All forest management activities authorized under this plan will adhere to the following restric-

TABLE 4

TIMBER ACREAGE ALLOCATIONS

Commercial Category	Commercial Conifer[1]	Woodland[2]	Total
Category 1[3]	3,387	1,923	5,310
Category 2[4]			
Riparian Buffer	112	80	192
Deadline-Pinegrove Unit	12,126	3,330	15,456
North Piney Unit	4,450	4,097	8,547
Miller Mountain Unit	3,964	3,805	7,769
Scab Creek area	184	271	455
Category 3[6]			
Fort Hill (elk winter range)	277	145	422
Elk Feedgrounds	783	406	1,189
Category 4[7]			
Rock Creek ACEC (drainage only)	1,322	180	1,502
TOTAL ACREAGE	**26,605**	**14,237**	**40,842**
Acres Available for Forest Management (Categories 1 & 2)	24,223	13,506	37,729
Acres Not Available for Forest Management (Categories 3 & 4)	2,382	731	3,113

[1] Commercial conifer consists of lodgepole pine, Douglas-fir, and the spruce-fir tree species. It also contains nonstocked stands capable of supporting these species or species groups.

[2] Woodland consists of aspen and limber pine.

[3] Lands available for intensive management of forest products.

[4] Lands available for restricted management of forest products.

[5] Riparian Buffer includes only those riparian acres not included in other restrictions.

[6] Land where forest acreage would be managed to enhance other resources.

[7] Lands not available for management of forest products.

tions. Exceptions will require supporting environmental analysis.

No clearcutting or tracked or wheel-type equipment operations will be allowed within a 100-foot buffer of riparian areas.

Logging operations on slopes steeper than 45 percent will be limited to technologically, environmentally, and economically acceptable methods such as cable yarding and(or) horse skidding.

No logging activities will be allowed from November 15 through April 30 in crucial elk winter ranges and feedgrounds, and from May 1 through June 30 in elk calving areas.

Generally, individual clearcut units will not exceed 25 acres.

Regeneration in harvest units and burned areas must provide elk hiding cover (vegetation capable of hiding 90 percent of an adult elk at a distance equal to or less than 200 feet), or must achieve preharvest stocking levels (numbers of trees per acre) with 12- to 15-foot tall trees, before timber harvesting will be allowed in adjacent stands. Exceptions will be allowed for emergency salvage of insect- or disease-infested timber and weather- or fire-damaged timber.

Slash disposal will be tailored to the individual harvest unit to promote reforestation, minimize erosion, and allow big game movement. Methods that will be employed include broadcast burning, piling and burning, lopping and scattering, chipping, and roller chopping.

TABLE 5

TIMBER HARVEST AND THINNING LEVELS PER DECADE[1]

Harvest Level (mmbf)	9.1
Harvest Acreage[2]	1,405.0
Precommercial Thinning[3]	600.0
Total Acreage Involved	**2,005.0**
Average Acres Involved/Year	200.5
Average Volume Harvested/Year (mmbf)	0.91

[1] Harvest acreage and volume and thinning would be from Categories 1 and 2 (lands available for intensive forest management and lands available for restricted forest management) described in the Affected Environment of the draft RMP/EIS.

[2] Harvest acreage figures assume an average volume/acre of 6,478 board feet (USDI 1985a) and reflect a combination of clearcut and partial cut harvesting, as well as commercial thinning.

[3] Precommercial thinnings would generally be designed to leave a tree every eight feet (approximately 680 trees per acre) and should not result in reductions in cover ratios.

Timber harvesting practices will be consistent with accepted silvicultural guidelines for each species but will also reflect individual stand conditions or other resource and environmental concerns.

Artificial reforestation will be conducted to the extent necessary to eliminate the reforestation backlog and to ensure that minimum stocking levels on new clearcuts are achieved within 15 years after harvesting.

Individual timber sale and general forest management plans will evaluate areas for possible management as old growth timber.

Aspen stands will be managed to maintain or enhance wildlife values; however, they will also be used to produce wood products on a demand basis.

Management Units

Within the general forest management objective and guidelines, each of the following four management units has separate sub-objectives and planned actions.

Deadline-Pinegrove Unit

The Deadline-Pinegrove unit will be managed to give full protection to the Colorado River cutthroat trout in the Rock Creek drainage and to maintain October 1985 levels of forest cover for wildlife in the remainder of the unit. Approximately 953 acres will be available for harvest over a 20-year period.

All forest management activities will be excluded in the Rock Creek drainage.

A minimum of 90 percent of the conifer acreage in the Graphite and Riley Ridge crucial elk winter ranges will be maintained. Annual cover level fluctuations will not be allowed except for emergency salvage.

No clearcutting or road construction will be allowed within 1,000 feet of Beaver Creek. Exceptions will be granted only if additional site-specific analysis verifies that such actions will not adversely affect crucial Colorado River cutthroat trout habitat.

North Piney Unit

The North Piney unit will be managed to give full protection to the elk feedgrounds and to maintain October 1985 levels of forest cover for wildlife, primarily elk.

All forest management activities will be excluded from the Finnegan and North Piney elk feedgrounds, except when such management would be necessary to maintain the integrity of the feedground environment.

Approximately 680 acres will be harvested for forest products over a 20-year period.

Miller Mountain Unit

The Miller Mountain unit will be managed to provide full protection to forested portions of the Fort Hill-Fontenelle elk winter range and to maintain approximately 90 percent of the conifer acreage in the remainder of the unit in cover for wildlife.

Forest management activities will be excluded from the Fort Hill elk winter range. Exceptions will be allowed for emergency salvage when the wildlife will benefit.

Approximately 396 acres or 10 percent of the conifer base, excluding the Fort Hill winter range, will be harvested over a 20-year period.

Eastside-Hoback Unit

The Eastside-Hoback unit will be managed to give full protection to the forested portions of the elk feedgrounds and to manage the remaining forested lands for forest products on an allowable harvest/sustained yield basis.

Approximately 781 acres will be harvested for forest products over the next 20 years, based on and prorated from figures in USDI 1985a (adjusted operational limits solution).

Forest management activities will be excluded from the Franz elk feedground, except for salvage and sanitation harvests when necessary to maintain the integrity of the feedground environment to benefit the elk.

The removal of forest products in about 1,764 acres of the Scab Creek area will be limited to partial cutting. Horse yarding will be required in areas not adjacent to existing roads and trails. No new roads will be allowed.

Other than for emergency salvage of damaged or dead trees and for public protection, no forest product harvesting will be allowed in the Scab Creek campground. Campers will be allowed to obtain firewood from designated areas.

Table 6 displays the timber harvest objectives for each management unit. The "Proposed Percent Out-of-Cover" column reflects the maximum yearly out-of-cover objective for the Deadline-Pinegrove, North Piney, and Miller Mountain units. The Eastside-Hoback unit shows a harvest projection based on the sustained yield for the unit (not a harvest objective).

TABLE 6
TIMBER HARVEST LEVELS BY MANAGEMENT UNIT

Unit	Conifer/ Cover Acreage[1]	Present Acres Out of Cover[2]	Percent Out of Cover	Proposed Harvest Acres	Proposed Maximum Percent Out of Cover	Expected Volume (mmbf)
Deadline-Pinegrove	12,126	953	8	953	8	6.2
North Piney	4,450	680	15	680	15	4.4
Miller Mountain	3,964	209	5	396	10	2.6
Eastside-Hoback	3,683	23	1	781	21	5.0
TOTAL	**24,223**	**1,865**	**8**	**2,810**	**12**	**18.2**

[1] Excludes forest acres where forest management activities would be prohibited.

[2] Source: USDI 1985b.

WILDERNESS MANAGEMENT DECISIONS

Objective

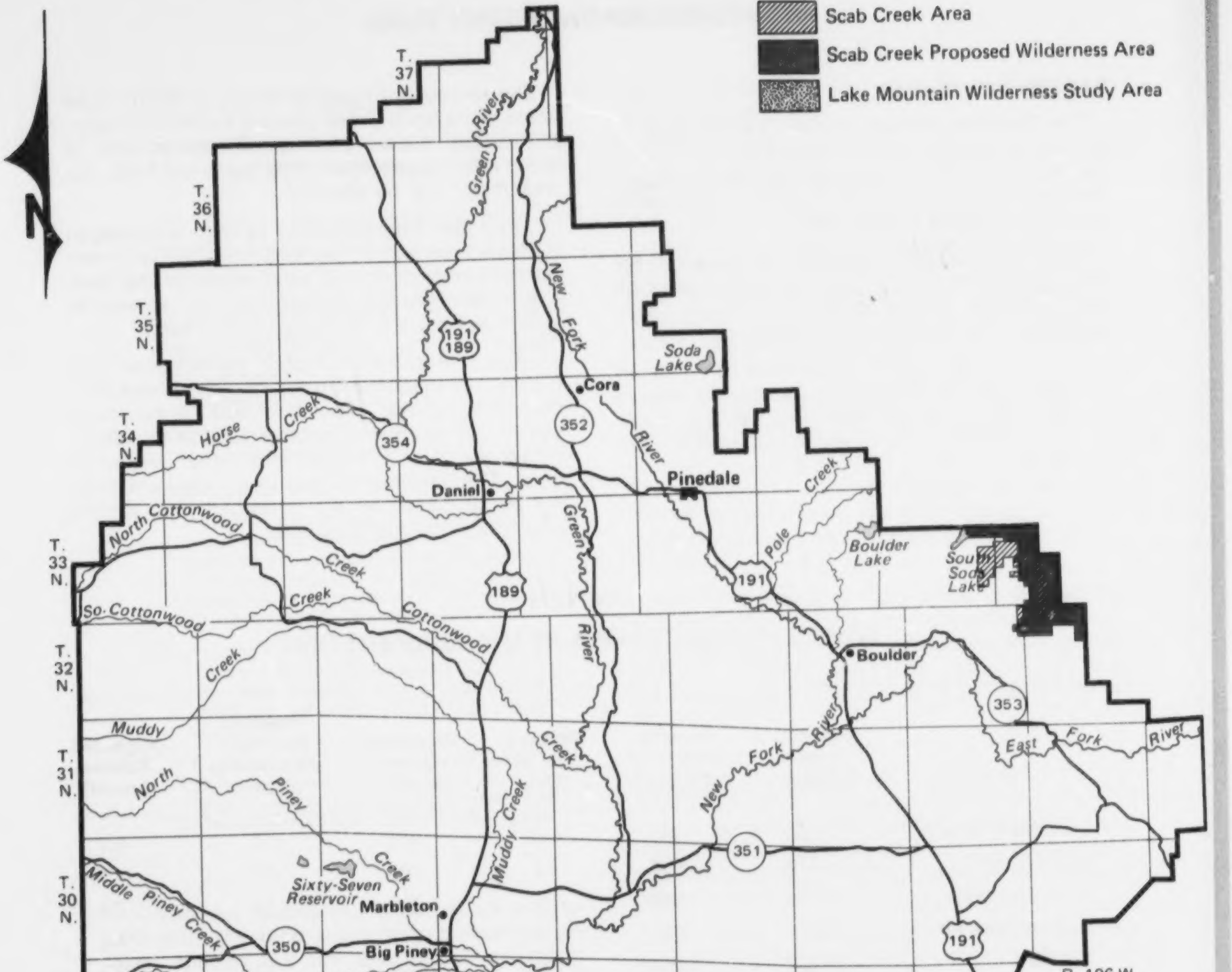
Proposed wilderness areas will be managed for wilderness values in accordance with the decision of Congress.

The two wilderness study areas (WSAs) in the planning area, the Scab Creek WSA and the Lake Mountain WSA (Map 9), were evaluated in two previous wilderness environmental impact statements (USDI 1981b and USDI 1983). As a result of these analyses, the BLM recommended the Scab Creek WSA for designation as wilderness and the Lake Mountain WSA for nondesignation as wilderness. Both recommendations are pending further processing and Congressional decision.

Management Actions

Until Congress acts, these WSAs will be managed under the "Interim Management Policy and Guidelines for Lands Under Wilderness Review" (USDI 1987b).

Congressional decisions on the Scab Creek and Lake Mountain WSAs (Map 9) will be incorporated into the approved Pinedale RMP.



Map 9

WILDERNESS STUDY AREAS/ PROPOSED WILDERNESS

Pinedale Resource Management Plan

Should Congress designate one or both of the WSAs (partially or wholly) as wilderness, the management of the designated areas will be for wilderness values, as described in the appropriate wilderness EIS.

Should Congress not designate one or both areas (partially or wholly) as wilderness, the management of the nondesignated areas will be in accordance with the approved Pinedale RMP. The undesignated areas will lose their identity as WSAs and will be managed along with the adjoining area as prescribed in the approved Pinedale RMP.

VISUAL RESOURCE MANAGEMENT DECISIONS

Objective

The objective of visual resource management (VRM) will be to maintain overall integrity of visual resources while allowing for modification and changes to occur to meet other resource objectives.

Management Actions

VRM classes have been established in line with overall resource management objectives of the approved Pinedale RMP. Table 7 shows the classification acreages and Map 10 shows the classification area boundaries. These are subject to change and further definition as more inventories and evaluations are conducted.

A program will be initiated to improve the visual quality of oil fields in the planning area by working with the companies to reduce the visual impact of existing facilities.

Projects of all types within established VRM class areas will generally be required to conform with the objectives and characteristics of the classification, or the project will be modified in order to meet the VRM class objective. Short-term modifications in portions of visual class areas may be approved if a site specific environmental analysis determines that impacts would be acceptable.

The VRM class areas will be monitored periodically for cumulative impacts which may potentially conflict with their classifications.

TABLE 7

VISUAL RESOURCE MANAGEMENT CLASSIFICATIONS AND ACREAGE[1]

Classification	Acres
I	12,036
II	215,826
III	594,809
IV	795,329
TOTAL	**1,618,000**

[1] All lands in the planning area were rated; however, only the BLM-administered lands will be managed for these visual classes.

OFF-ROAD VEHICLE MANAGEMENT DECISIONS

Objective

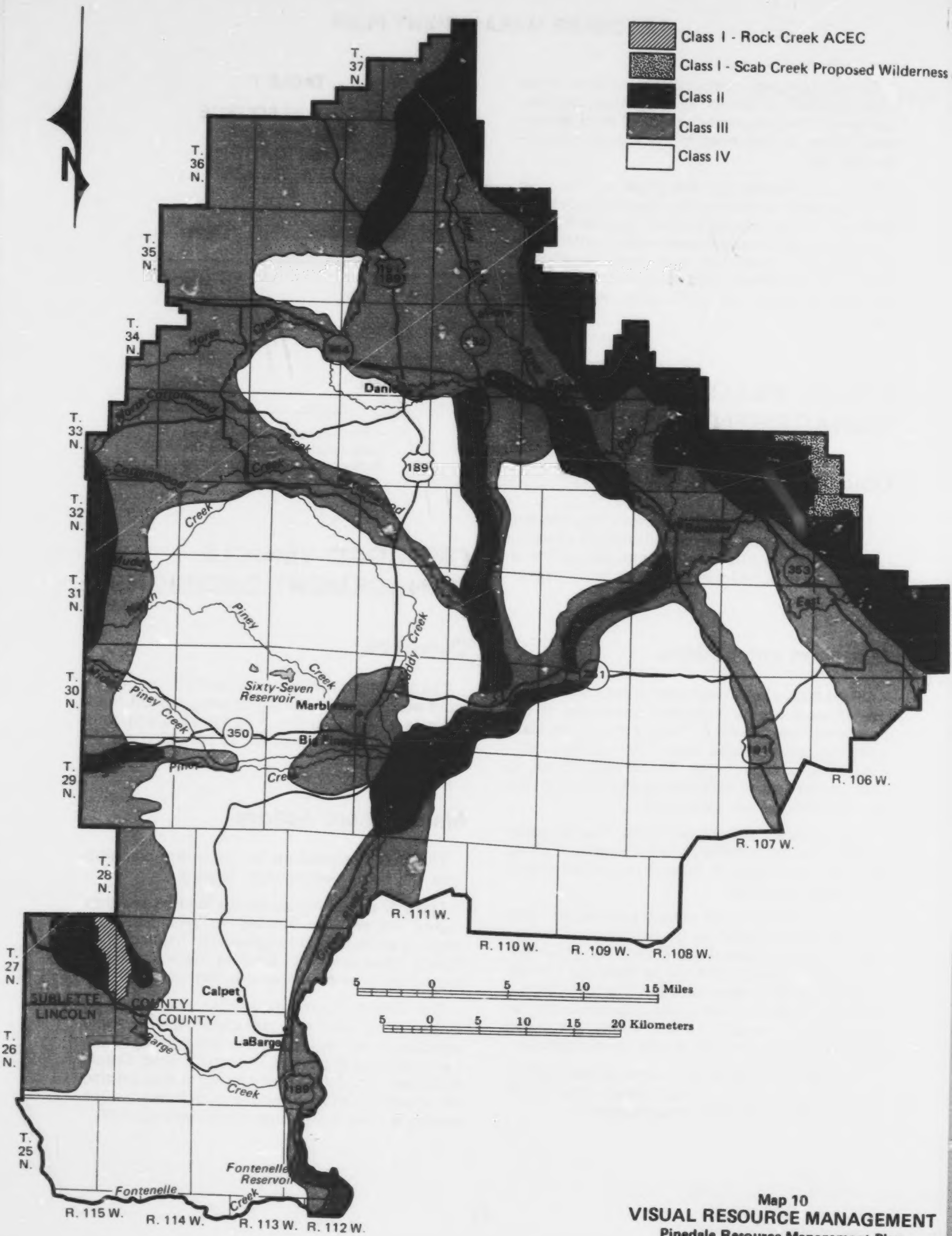
The objective of off-road vehicle (ORV) management will be to allow the legitimate use of off-road vehicles where possible (43 CFR 8340.0-5), and provide adequate protection to identified sensitive resources.

Management Actions

The ORV designations for the entire planning area will be as described in Table 8.

The entire planning area is designated as either "open," "closed," or "limited" to ORV uses. The majority of the area is designated as "limited" (i.e., having travel limited to existing roads and trails, except for over-the-snow vehicles) (Map 11).

The Bench Corral elk winter range will be closed to all ORV use, including over-the-snow vehicles, from November 15 through April 30. Lands around the Franz, Finnegan, Scab Creek, Fall Creek, and North Piney feedgrounds will also be closed to ORV use and unauthorized human presence from November 15 through April 30.



Map 10

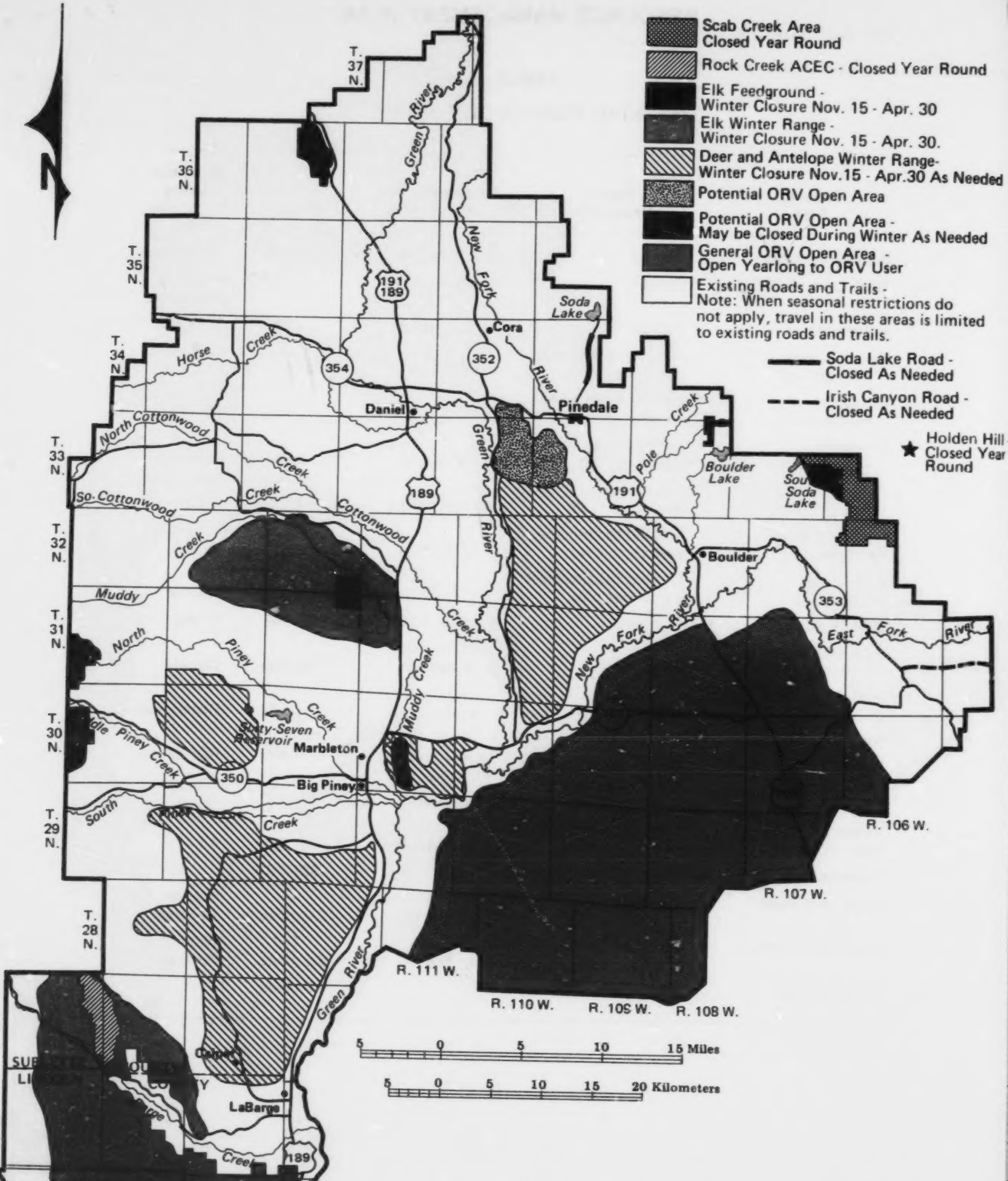
VISUAL RESOURCE MANAGEMENT

Pinedale Resource Management Plan

TABLE 8

OFF-ROAD VEHICLE DESIGNATIONS

Name of Area	Type of Designation	Season/Dates of Restriction	Acres	Resource Being Protected
Scab Creek Area	Closed	year round	7,636	Wilderness
Rock Creek ACEC	Closed	year round	4,200	Wildlife, Watershed
Holden Hill	Closed	year round	120	Cultural
Bench Corral Feedground	Limited to authorized personnel only	11/15-4/30	42,230	Wildlife
Fall Creek Feedground	Limited to authorized personnel only	11/15-4/30	714	Wildlife
Finnegan Feedground	Limited to authorized personnel only	11/15-4/30	2,698	Wildlife
Franz Feedground	Limited to authorized personnel only	11/15/-4/30	1,160	Wildlife
North Piney Feedground	Limited to authorized personnel only	11/15-4/30	2,519	Wildlife
Scab Creek Feedground	Limited to authorized personnel only	11/15-4/30	1,870	Wildlife
Miller Mountain	Limited	11/15-4/30	118,543	Wildlife
Deer and Antelope Winter Range	Limited	11/15-4/30 as needed	158,600	Wildlife
Mount Airy Proposed Open Area	Open	year round	8,178	Recreation
Big Piney Proposed Open Area	Open	year round	1,600	Recreation
Desert General Use Area	Open to general ORV uses	year round	224,850	All
Remainder of Resource Area	Limited to existing roads and trails	year round	357,662	All
Total Acres			**931,000**	
Soda Lake Road	Limited	4/15-5/9 as needed	2.0 miles	Wildlife, Watershed
Irish Canyon Road	Limited	4/1-6/30 as needed	6.5 miles	Watershed, Recreation
TOTAL MILES			**8.5 miles**	


Scab Creek Area Closed Year Round
Rock Creek ACEC - Closed Year Round
Elk Feedground - Winter Closure Nov. 15 - Apr. 30
Elk Winter Range - Winter Closure Nov. 15 - Apr. 30.
Deer and Antelope Winter Range- Winter Closure Nov.15 - Apr.30 As Needed
Potential ORV Open Area
Potential ORV Open Area - May be Closed During Winter As Needed
General ORV Open Area - Open Yearlong to ORV User
Existing Roads and Trails - Note: When seasonal restrictions do not apply, travel in these areas is limited to existing roads and trails.
Soda Lake Road - Closed As Needed
Irish Canyon Road - Closed As Needed
★ Holden Hill - Closed Year Round
T. 37 N.
T. 36 N.
T. 35 N.
T. 34 N.
T. 33 N.
T. 32 N.
T. 31 N.
T. 30 N.
T. 29 N.
T. 28 N.
T. 27 N.
T. 26 N.
T. 25 N.
Green River
New Fork River
Soda Lake
Cora
191 189
354
352
Horse Creek
North Cottonwood Creek
So. Cottonwood Creek
Cottonwood Creek
Daniel
Pinedale
Pole Creek
Boulder Lake
South Soda Lake
Boulder
189
191
353
East Fork River
Muddy Creek
North Piney Creek
Sixty-Seven Reservoir
Middle Piney Creek
Marbleton
350
Big Piney
South Piney Creek
Calpet
LaBarge
LaBarge Creek
SUBLETTE COUNTY
LINCOLN COUNTY
Fontenelle
R. 106 W.
R. 107 W.
R. 111 W.
R. 110 W.
R. 109 W.
R. 108 W.
R. 115 W.
R. 114 W.
R. 113 W.
R. 112 W.
5 0 5 10 15 Miles
5 0 5 10 15 20 Kilometers
N

Map 11

OFF-ROAD VEHICLE DESIGNATIONS

Pinedale Resource Management Plan

The Deer Hills, Oil Field, and Mesa deer and antelope winter ranges will have a winter travel limitation restricting vehicle travel from November 15 through April 30 on an as-needed basis. These seasonal limitations will be implemented in cooperation with the Wyoming Game and Fish Department during severe winters or periods of disturbance of the wildlife wintering in these areas of concern.

About 120 acres in the Holden Hill area will be closed to all ORV use.

ORV open use areas will be provided to allow for recreational ORV uses. The two initial areas (Mount Airy and Big Piney) will be established adjacent to the towns of Pinedale and Big Piney. These areas will be established to provide intensive use areas for ORV's after a site specific environmental analysis is considered and an activity plan is prepared. Precise boundaries for the areas will be determined in the course of preparing and analyzing the activity plan.

The Desert General Use area will remain open to generalized ORV uses. This is an area of over 224,000 contiguous acres of public land (Map 11). The Desert Open Area will be monitored to determine if unacceptable impact levels are occurring or being approached, which will require that ORV use be re-evaluated and limited accordingly.

In general, off-road vehicle use will be monitored periodically to determine actual use and public demands. Monitoring of high density roaded areas will be conducted as described in the section on Access Management.

RECREATION MANAGEMENT DECISIONS

Objective

Recreation values will be managed to accommodate existing uses, prevent or mitigate environmental degradation resulting from recreation and other uses, and provide for the anticipated recreation uses and use levels in the resource area.

Management Actions

Management emphasis will be placed on the current recreation management areas including Scab Creek, the Green and New Fork rivers, Oregon Trail routes, and Boulder Lake.

Recreation facilities will be installed where needed to accommodate the anticipated recreation uses and use levels and to provide for adequate public health and safety (Map 12).

The order of priority for recreation management will be: 1) Congressionally designated areas, 2) major rivers and lakes where BLM has clear jurisdiction, 3) areas with outstanding recreation resource values not already provided for in the area, and 4) areas where the recreation capacity is regularly exceeded, threatening other important resource values.

Cooperative recreation projects and those with contributed funding can be given priority for development in conformance with established recreation objectives and priorities.

Withdrawals from exploration and development of locatable minerals will be pursued, as necessary, on developed and semi-developed recreation sites (currently about 585 acres).

Recreation management for the Scab Creek area, the Green and New Fork rivers, and the Oregon Trail routes will emphasize maintaining or improving the quality of the sites and the recreation experience.

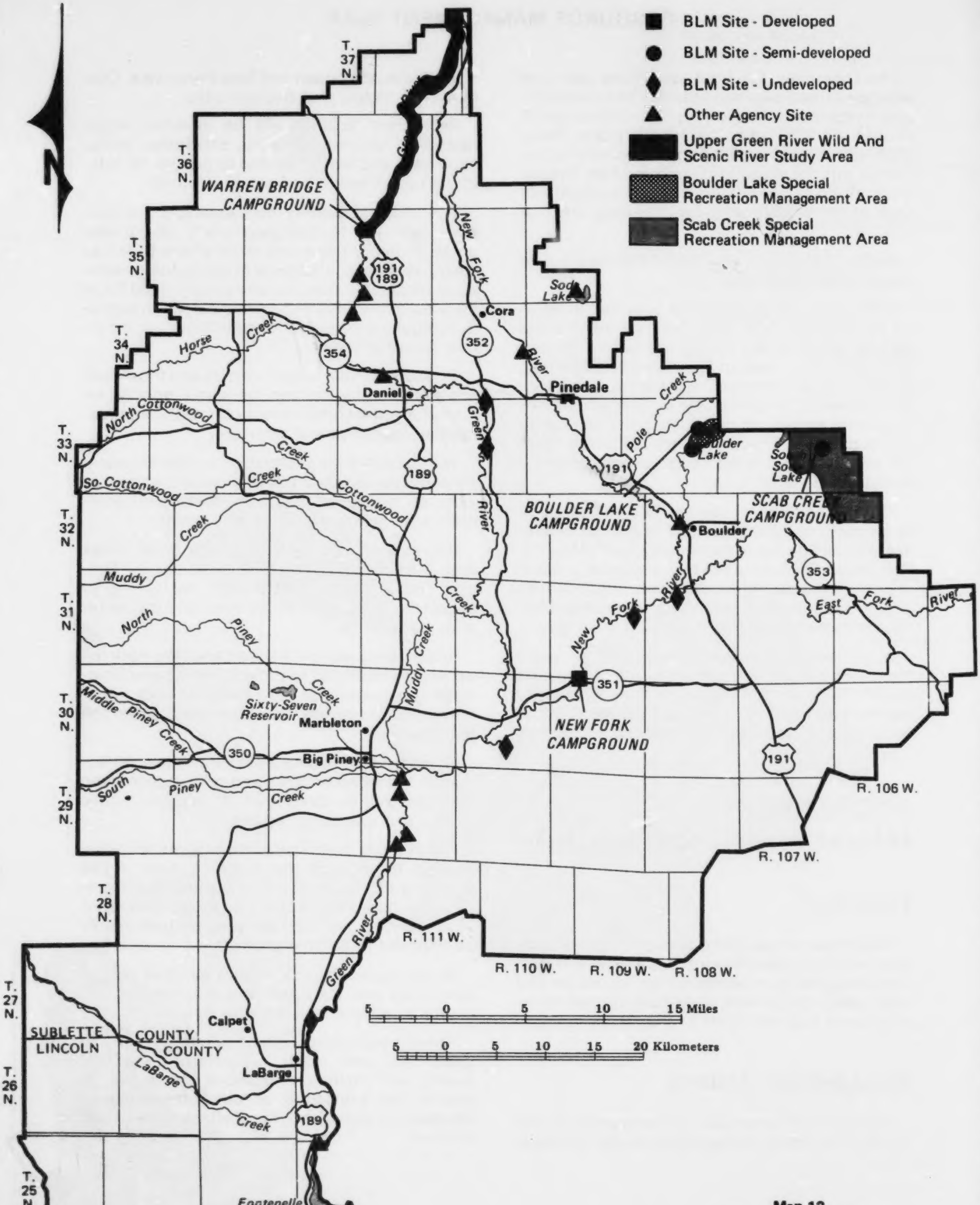
Public lands along the Green and New Fork rivers will be managed to provide fishing and floatboating opportunities. Necessary facilities will be developed to provide for protection of users and the resources.

Boulder Lake will be established as a special recreation management area and related recreation facilities will be developed to improve public access and use opportunities.

A maximum 16-day camping limit will be implemented throughout the planning area. Areas requiring shorter limits will be posted. Written authorizations will be required for longer periods. A temporary, no overnight camping stipulation may be imposed in an emergency.

Where applicable, recreation facilities will be developed and managed in a manner that will maintain, restore, and improve riparian values.

Special recreation permits commercial recreation uses and major competitive recreation events will include mitigations developed to ensure the protection of other resources in accordance with objectives of all resource values involved.



Map 12
RECREATION SITES
Pinedale Resource Management Plan

WILD AND SCENIC RIVERS DECISIONS

Objective

Any rivers or river segments designated or studied under the Wild and Scenic Rivers Act will be managed in accordance with their classification or Congressional designation as a wild, scenic, or recreational river.

Management Actions

The 19-mile segment of the Green River from Warren Bridge to the Forest Service boundary will be further studied for its potential designation as a wild, scenic, or recreational river. This segment will be studied in conjunction with a 30-mile segment on Forest Service land that is also proposed for study. Table 9 reflects the analysis and conclusions of this proposal for further study (see Map 12). The Upper Green River wild and scenic river study segment will be managed to protect the integrity of the identified river segment until the study is completed and Congress acts on the study recommendations.

Until the study is complete and Congress issues a decision, this segment of the Green River will be managed in accordance with the interim management guidance for wild and scenic rivers, in accordance with Public Law 90-542.

Should Congress decide not to designate the Upper Green River segment as a wild, scenic, or recreational river, this segment will continue to be managed as a Special Recreation Management Area as described in the Recreation Management Decisions.

Fontenelle Creek will not be recommended for further evaluation for potential wild, scenic, or recreation river study. No further study or action will be taken. That is, this area will lose its identity as a potential wild and scenic river and will be managed along with adjoining or encompassing areas as prescribed in the approved Pinedale RMP.

CULTURAL RESOURCE MANAGEMENT DECISIONS

Objective

The cultural resources will be managed to: 1) resolve conflicts between cultural resources and other resource uses; 2) provide appropriate levels of protection for significant cultural resources; 3) design cultural resource management actions to maintain the value of cultural resources; and 4) provide for the scientific and educational use of cultural resources.

Management Actions

The various uses of the BLM-administered public lands will be managed to avoid damage to cultural resources; minimize conflicts between uses of cultural resources and other uses of the public lands; provide for appropriate mitigation of unavoidable adverse effects on cultural resources prior to their disturbance or destruction; and identify and protect cultural resources. The cultural resource management process is described in Appendix E.

Cultural resource management activity plans (such as the Oregon/Mormon Pioneer National Historic Trails Management Plan) will be completed and implemented to identify, salvage, and protect cultural and historical sites. Activity plans will be prepared for any current or future sites listed on, or determined eligible for the National Register of Historic Places (NRHP), including sites 48LN300, 48SU350, and 48SU301, and the Overlook Rock Shelter, the Aspen Stone Circle site, the Cora Butte alignment site, the Willow Lake site, and the Boulder Lake site. Site specific management prescriptions will be developed in the activity plans.

Significant cultural resource sites will be nominated to the National Register of Historic Places.

As necessary, withdrawal from exploration and development of locatable minerals on significant cultural resource sites will be pursued.

Cultural resource management activity plans will be developed and implemented to identify, salvage, and protect cultural and historical sites.

Cooperative agreements will be pursued with local historical and archeological societies and other interested parties for attaining mutual historic preservation goals.

Lands actions (e.g., exchanges) in support of cultural resource management objectives will be pursued, as appropriate.

Compliance with the cultural resource management decisions and other requirements will be monitored on 1) the performance of cultural resource use permittees, and 2) stipulations on BLM leases and other use authorizations and selected sensitive sites.

TABLE 9

WILD AND SCENIC RIVERS CRITERIA[1]

River or Stream	Free-Flowing Natural	Length	Water Volume	Outstandingly Remarkable Values	Water Quality	Conclusions
Green River	No impoundments or other unnatural alterations of significant nature to disqualify.	Approximately 19 miles from Warren Bridge to USFS boundary. 11 miles private, 8 miles public.	Sufficient volume permits full enjoyment of water-related outdoor recreation activities generally associated with comparable rivers.	This river has significant historic values identified; outstanding scenic values, unique wildlife habitat values, and offers a unique recreation opportunity.	Water quality is sufficient to allow contact recreation.	This river qualifies and will be considered as a potential wild and scenic river in all alternatives. Future study and potential designation should be conducted in conjunction with the 30-mile segment to be studied on the Forest.
Fontenelle Creek	Free flowing with numerous irrigation diversions.	Approximately 21 miles from Fontenelle Reservoir to USFS boundary. 15 miles private, 5 miles public, 1 mile state.	Volume allows for a wide spectrum recreation when compared to rivers already in the system or qualifying rivers.	Stream is not outstanding when compared to rivers already in the system or qualifying as potential.	Water quality is sufficient to allow contact recreation.	Water volume and values indicate disqualification. This stream extends 15 miles into Bridger-Teton National Forest. Coordination with USFS indicates USFS portion also disqualifies.

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[1] These criteria are defined in detail in the "Guidelines for Evaluating Wild, Scenic, and Recreational River Areas Proposed for Inclusion in the National Wild and Scenic Rivers System" under Section 2, PL 90-542.

LANDS AND REALTY MANAGEMENT DECISIONS

Objective

The lands and realty management objective will be to provide land use authorizations in support of public needs. This is to be done in consideration of and in compliance with the various management decisions, goals, objectives, and resource restrictions required to protect or maintain the multiple uses and resource values as described in the approved Pinedale RMP. The right to occupy or acquire public lands will be authorized under the appropriate realty actions within a multiple use management concept and within the objectives and guidance provided under all resources.

Management Actions

Land Tenure Adjustment

Proposals for the disposal of public lands will be considered on a case-by-case basis (e.g., transfer from the administration of the BLM to other federal agencies, or local or state governments, or disposal through methods such as Desert Land Entry, public sale, exchange, state indemnity selection, or Recreation and Public Purposes leases or patents). Generally, the preferred method of disposal will be exchange; however, any of the available methods may be used, as appropriate to individual situations. Prior to taking any disposal action, an environmental analysis will be conducted on the proposal and the involved lands will be evaluated for compliance with the disposal criteria listed in Appendix F-1 and for consistency with objectives of this RMP.

Approximately 6,400 acres have been identified as suitable for future consideration for disposal, and another 14,500 acres have been identified as suitable for consideration for disposal only by exchange (Map 13, Appendix F-2). Proposals to dispose of any other BLM-administered public lands will be considered and evaluated on a case-by-case basis.

Special attention will be given to retaining enough public lands at the Cora Y highway crossing, at the south end of Fremont Lake, and at other important wildlife migration routes to provide for free movement of migrating big game animals.

Acquisition of nonfederal lands will be pursued by BLM, if needed, to accomplish management objectives of this RMP. Such acquisition will primarily be considered in areas of predominantly federal ownership, when other management options such as cooperative agreements are not available, and then primarily through exchange. Lands needed for wildlife habitat enhancement are identified in Appendix F-2. Other areas may be identified in the future.

Lands actions (e.g., exchanges) will be pursued to enhance and maintain key wildlife habitats. Land exchanges to acquire state and private lands in crucial habitats in important and predominantly federal management areas (e.g., Rock Creek ACEC, New Fork Potholes, key riparian areas) will be pursued.

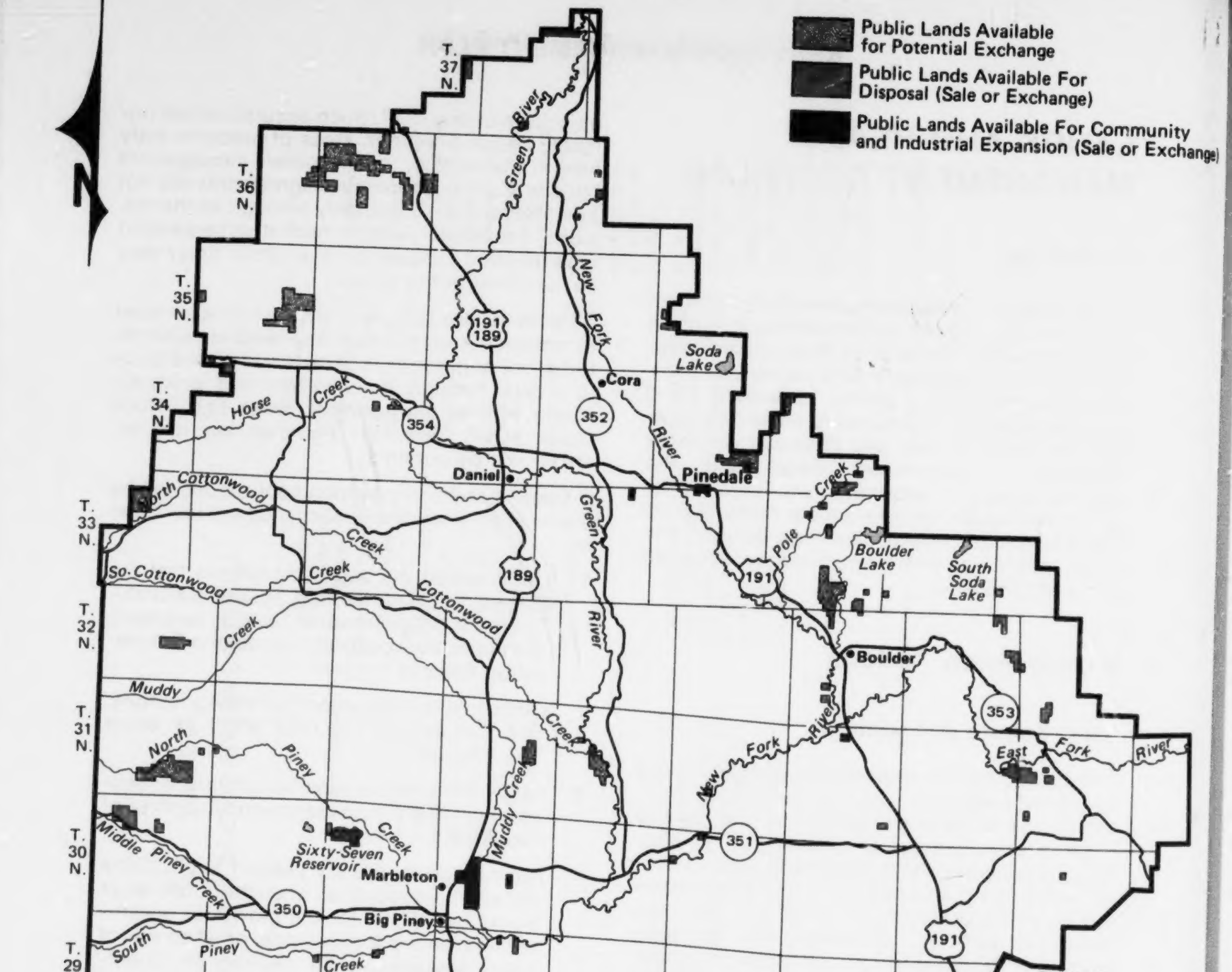
Desert Land Entry petition applications will be disqualified when the public lands are identified as:

1. Lands within the capability classes that the Department of Agriculture, Agricultural Stabilization and Conservation Service, is seeking to remove from cultivation under the Conservation Reserve Program.
2. Lands that the Department of the Agriculture, Soil Conservation Service show as being "nonirrigable."
3. Lands identified as sensitive, unique, or necessary to fulfill the management objectives of this RMP.
4. Agricultural land entry petition applications will also be disqualified when the public lands would be utilized for the growth of government price-supported crops, or when use of water supplies would deplete an underground water supply beyond its annual recharge capability, thus threatening existing water users.

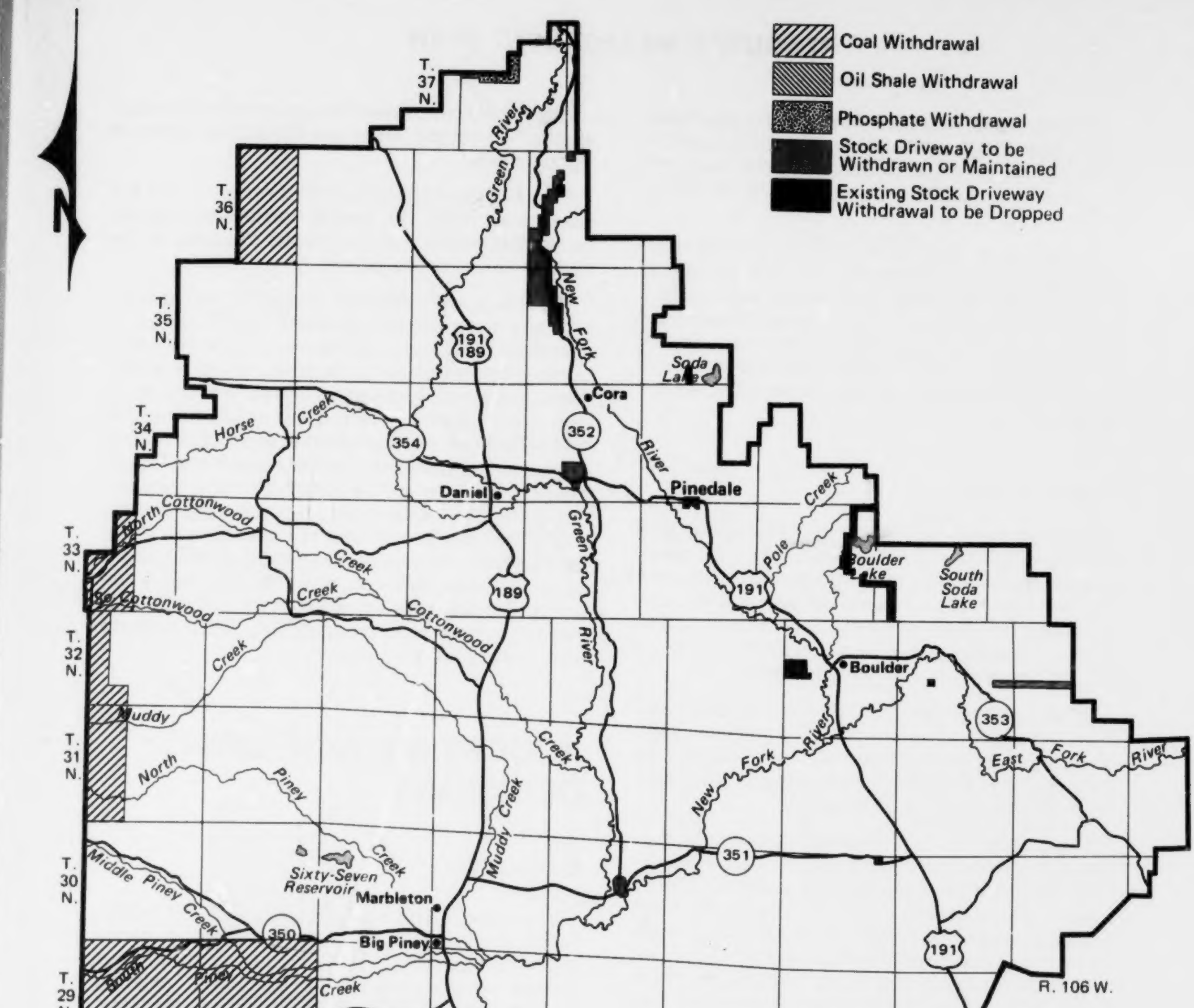
Withdrawals and Classifications

Whenever necessary, withdrawals in support of other resource management objectives and actions will be pursued.

Public lands within active livestock driveways that are continuing to serve their designated purpose (Map 14), will continue to be segregated from all forms of disposal under the public land laws. The withdrawals for stock driveways that are not serving their designated purpose will be terminated. Mineral locations on stock driveways will be handled under 43 CFR 3815. Disposal proposals that will not be compatible with the continued use or purpose of stock driveways will not be approved.



Map 13
LAND TENURE ADJUSTMENT PARCELS
Pinedale Resource Management Plan



Map 14

EXISTING WITHDRAWALS

Pinedale Resource Management Plan

Existing land withdrawals (held by agencies other than BLM) currently encumbering public lands will be reviewed to determine the need for continuation, modification, revocation, or termination of the withdrawals.

Classification and Multiple Use Act retention and disposal classifications (Orders W-19140, W-25810, and W-12668) in Sublette and Lincoln counties will be terminated. In areas covered by these orders, discretionary management under the provisions of the Federal Land Management Policy Act (FLPMA) will be consistent with the provisions of the RMP.

Rights-of-Way

Applications for rights-of-way and other land use authorizations will be considered on a case-by-case basis. They will be processed consistent with the objectives of this RMP and will include any necessary mitigation requirements (Appendix A-1), offset retrogression, or displacement of natural resource and economic values.

To the extent possible, linear rights-of-way (e.g., pipelines, powerlines, roads) will be routed where impacts will be least disturbing, taking into account point of origin, point of destination, and purpose and need of the project.

Areas closed to mineral leasing, having a no surface occupancy (NSO) restriction, or other otherwise identified as unsuitable for surface disturbance or occupancy in other sections of this RMP will be managed as avoidance or exclusion areas for rights-of-way. Such areas include, but are not limited to, recreation and cultural sites, the Rock Creek ACEC, and the Deadline Ridge-Graphite evaluation area. However, following a supporting environmental analysis, some types of rights-of-way projects may be allowed in such areas if they: would not create substantial surface disturbance; would be located in areas with a high potential for reclamation; would have impacts which would be temporary in nature; and would be compatible with the resource values being protected.

Areas requiring mitigations and restrictions for surface-disturbing activities will be managed as restricted areas for rights-of-way. Restrictions include, but are not limited to, seasonal restrictions for wildlife, sensitive watersheds, steep slopes, ORV designations, and other measures necessary to prevent degradation of cultural, historical, and recreational sites. Restricted areas for rights-of-way include wildlife crucial winter ranges, the Beaver Creek ACEC, the Upper Green River Special Recreation Management Area (SRMA), and the Soap Holes area.

Areas that are not identified as avoidance, exclusion, or restriction areas are considered open to rights-of-way.

Two transportation/transmission corridors are designated (Map 15). Actual corridor widths will be flexible within the constraints provided in the various resource objectives of the RMP.

Corridors are preferred routes for transportation and transmission facilities. Identification of corridors does not preclude location of transportation and transmission facilities in other areas, if environmental analysis indicates that the facilities are compatible with other resource values and objectives. Further identification of corridors does not mandate that transportation and transmission facilities will be located there if they are not compatible with other resource uses, values, and objectives in and near the corridors or if the corridors are saturated. Each right-of-way application will be reviewed and analyzed using the environmental data which exist for the area as a basis to determine compatibility with existing uses and resource values.

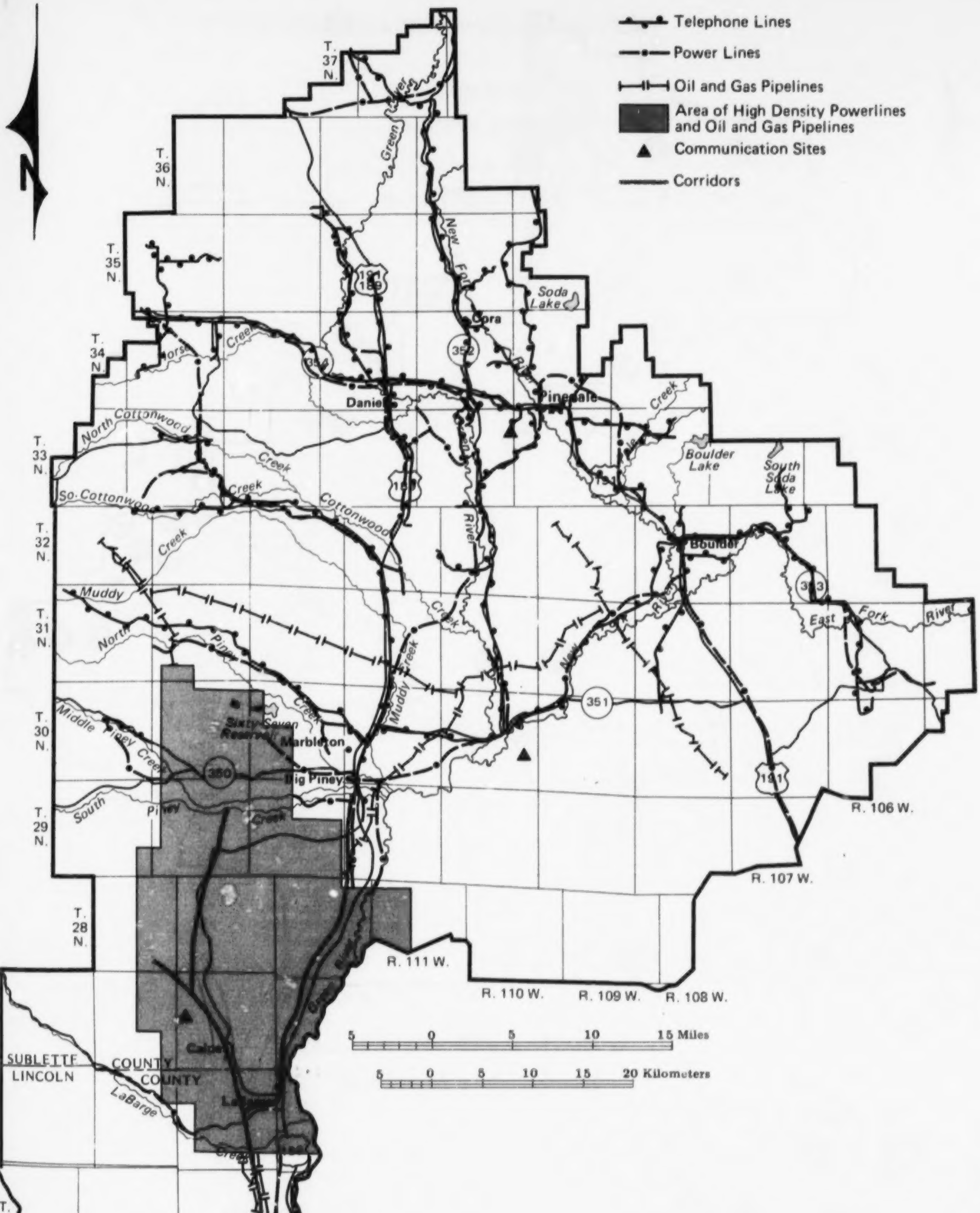
ACCESS MANAGEMENT DECISIONS

Objective

The objective for access management is to provide suitable public access to BLM-administered public lands. This may include acquiring new access where needed, maintaining existing access and expanding existing access facilities, or abandoning and closing access where it is not compatible with resource values and objectives.

Management Actions

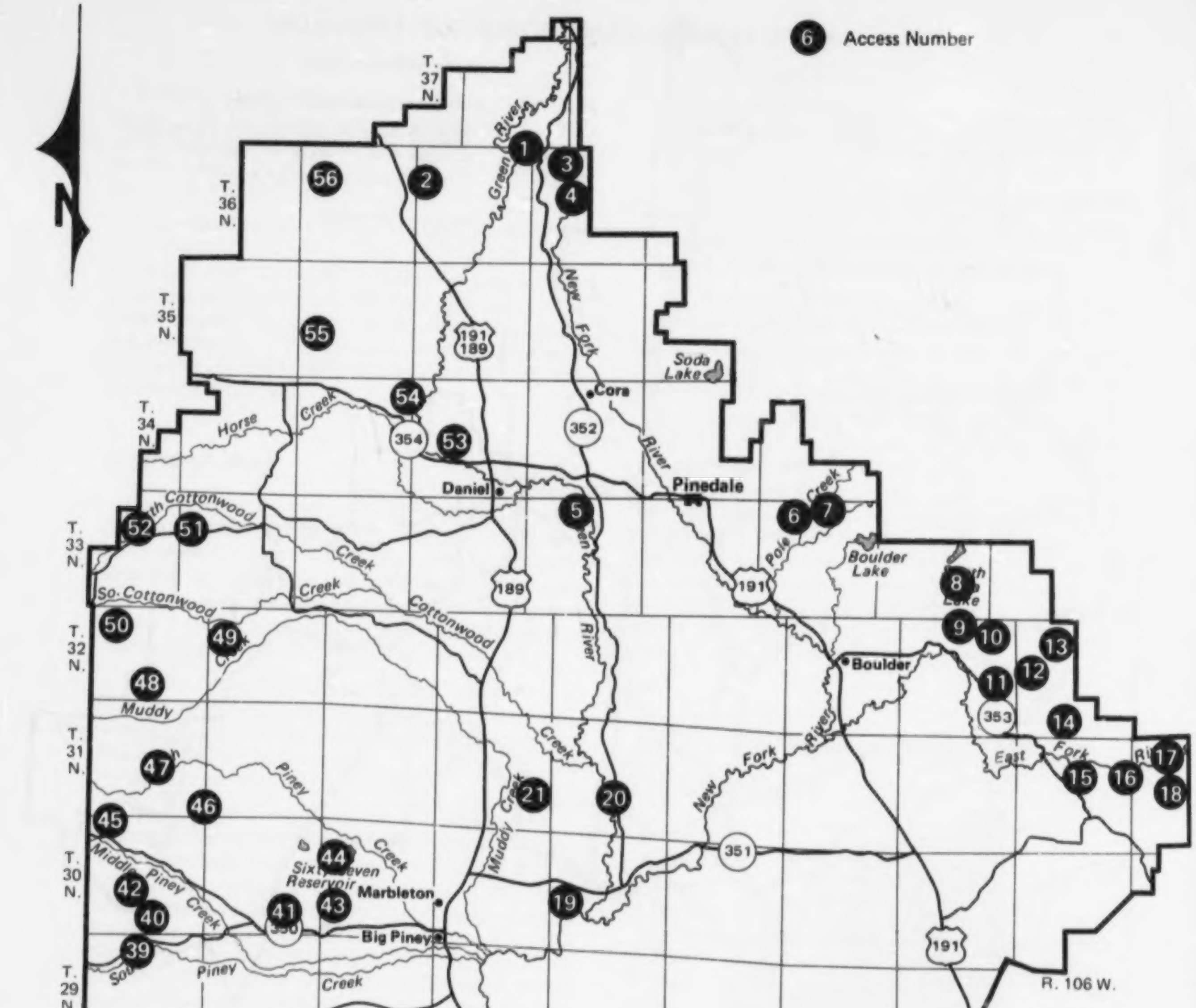
Access across private lands will be pursued as needed through a variety of methods, including but not limited to purchase of rights-of-way or easements, land exchange, reciprocal rights-of-way, and other statutory authorities. Refer to USDI 1985b for a description of specific access acquisition procedures. Map 16 and Table 10 show general locations of possible access routes or areas where legal access is needed. Specific routes and acquisition procedures for securing access will be determined through route analyses and environmental analyses as part of specific project and activity planning. Where appropriate, land exchanges or cooperative agreements will be considered to provide access needs.



Map 15

MAJOR UTILITY LINES AND UTILITY CORRIDORS

Pinedale Resource Management Plan



Map 16
ACCESS NEEDS
Pinedale Resource Management Plan

TABLE 10

ACCESS NEEDS

Road/Area Identification	Land Ownership	Benefitting Resource					
		Minerals	Range	Wildlife	Forestry	Recreation	Lands
1	Private					X	
2	Private		X				
3	Private		X				
4	Private/State	X		X			
5	Private					X	
6	Private/State					X	
7	Private					X	
8	Private			X		X	
9	Private					X	
10	Private		X				
11	Private		X			X	
12	Private		X			X	
13	Private/State					X	
14	Private		X				
15	State		X			X	
16	State		X			X	
17	Private		X			X	
18	Private		X	X	X	X	
19	Private					X	
20	Private					X	
21	Private		X				X
22	Private					X	
23	State					X	X
24	State	X	X	X	X	X	X
25	State	X	X	X	X	X	X
26	Private		X				
27	Private		X	X		X	
28	Private		X	X		X	
29	State	X					X
30	State	X	X	X	X	X	
31	Private		X	X	X	X	
32	Private		X	X		X	
33	Private/State	X		X	X	X	
34	Private	X		X	X	X	
35	Private	X	X	X	X	X	
36	State		X		X	X	
37	Private				X	X	
38	State		X		X	X	
39	Private	X			X	X	
40	Private				X		
41	Private	X					
42	Private		X	X	X	X	
43	Private		X			X	
44	Private					X	
45	Private		X		X	X	
46	Private		X			X	
47	Private		X	X	X	X	
48	Private	X					
49	Private	X	X	X	X	X	
50	Private		X		X	X	
51	Private	X				X	
52	Private		X	X	X	X	
53	Private		X				
54	Private		X			X	
55	Private		X			X	
56	Private		X	X	X	X	

A detailed evaluation of high density roaded areas in the planning area will be completed to determine needs for specific road closures and(or) rehabilitation. Priority evaluation areas include the Red Canyon, Red Castle Creek, and Fish Creek areas, as well as oil and gas fields in the southwestern portion of the resource area. Some existing roads may be closed except for administrative purposes. Specific mitigation measures and design requirements for roads will be developed through environmental analyses as part of specific project or activity planning.

Access closure, abandonment, and acquisition will be considered and established through activity planning and environmental analysis processes. Road or trail closure and abandonment will be based on desired road or trail densities; demands for new roads; closure methods (e.g., abandonment and rehabilitation, closures by signing, temporary or seasonal closures); type of access needed; resource development or protection needs; and existing uses.

FIRE MANAGEMENT DECISIONS

Objective

The fire program will be managed to protect public safety, life, and property while providing the maximum benefits of both prescribed fire and wildfire to overall resource management.

Management Actions

Fire will be considered a management option for vegetation manipulation to:

1) convert brush to other desired species,
2) rejuvenate desired species,
3) increase forage,
4) increase vegetation nutrient value and palatability,
5) promote wildlife habitat diversity,
6) improve vegetation cover on areas with insufficient protective ground cover, and
7) maintain or improve range, wildlife habitat, and watershed condition.

Fire will also be considered a management option for disposal of timber slash, seed bed preparation, hazard reduction, control of disease or insects, thinning, or species manipulation in support of forest management objectives.

In preparing activity plans, consideration will be given to fire applications in meeting resource management objectives.

A fire management action plan will be written for the planning area. Specific boundaries (Map 17) and fire management prescriptions will be consistent with or in support of the other identified resource values and management objectives (Appendix B).

Areas will be identified where a prescribed set of conditions will be acceptable in the event of an ignition. Prescribed fires will generally be confined to 200 acres or less in areas where current vegetation stages are desirable.

Fire protection on public lands will be managed by taking appropriate suppression actions through the fire management plan. Figure 2 identifies specific steps taken for all unplanned ignitions. Resource and operational support for presuppression and suppression planning will be coordinated with the Forest Service, Sublette County Sheriff's Office, Wyoming State Forestry Division, and local fire protection districts.

Wilderness areas will be managed as prescribed fire areas. Fire suppression in wilderness areas requires restraint in suppression methods. In any designated wilderness areas, the fire management objective will be to manage fire in ways that will cause the least degradation to wilderness values.

Prescribed burning will be conducted so as to: 1) not violate ambient air quality standards, 2) avoid visibility impairment, 3) minimize public nuisance, and 4) minimize smoke intrusions into sensitive areas.

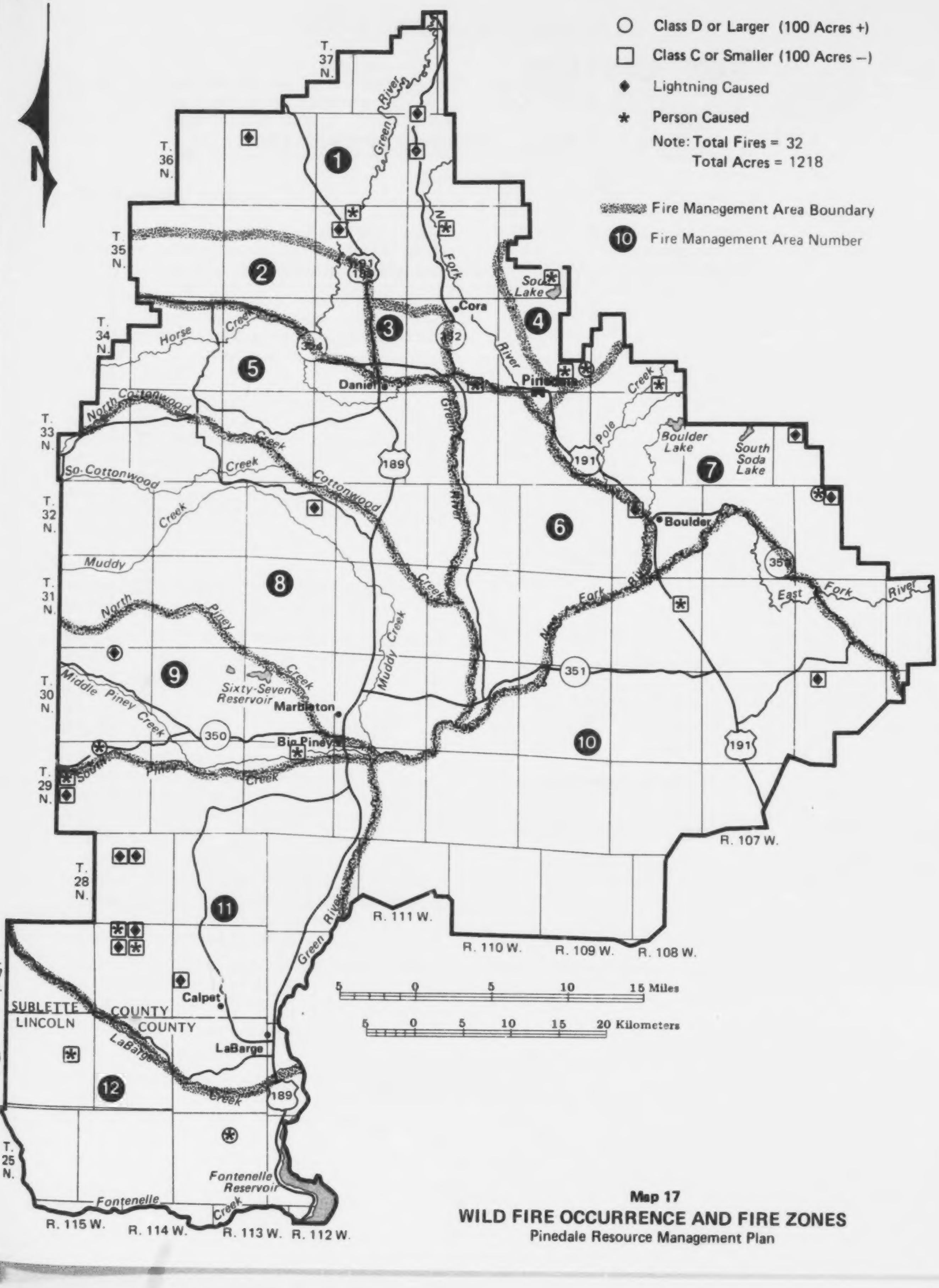
AREAS OF CRITICAL ENVIRONMENTAL CONCERN MANAGEMENT DECISIONS

Rock Creek ACEC

The Rock Creek ACEC designation is retained.

Objective

The objective for managing the Rock Creek ACEC is protection of the Rock Creek drainage



Map 17

WILD FIRE OCCURRENCE AND FIRE ZONES

Pinedale Resource Management Plan

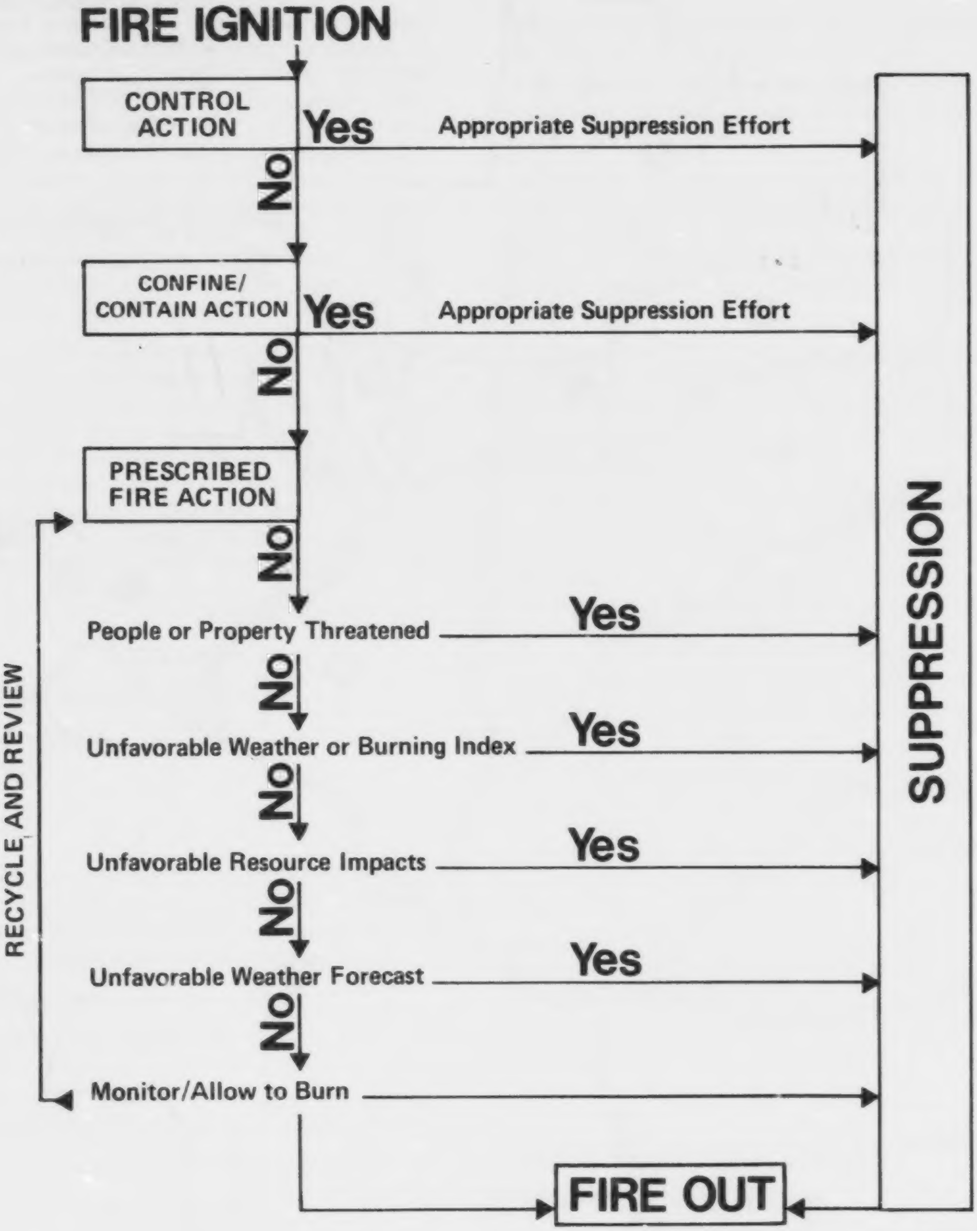

FIRE IGNITION
CONTROL ACTION
Yes
Appropriate Suppression Effort
No
CONFINE/ CONTAIN ACTION
Yes
Appropriate Suppression Effort
No
PRESCRIBED FIRE ACTION
No
People or Property Threatened
Yes
No
Unfavorable Weather or Burning Index
Yes
No
Unfavorable Resource Impacts
Yes
No
Unfavorable Weather Forecast
Yes
No
Monitor/Allow to Burn
RECYCLE AND REVIEW
SUPPRESSION
FIRE OUT

Figure 2
UNPLANNED IGNITIONS
FIRE DECISION CHART

to assure quality aquatic habitat for the sensitive Colorado River cutthroat trout and to provide crucial winter range for a portion of the Piney elk herd.

Management Actions

The existing boundaries of the Rock Creek ACEC are retained (Map 18). Constraints will be applied to competing activities accordingly.

The entire ACEC area and the Deadline-Graphite elk winter range area (approximately 17,100 acres) will be deferred from mineral leasing until a mineral and wildlife evaluation is completed.

The entire ACEC will be managed as a right-of-way avoidance or exclusion area, where rights-of-way will not be allowed unless a supporting environmental analysis indicates that the action meets the objective for the ACEC, minimal impacts would occur, and(or) the action would benefit the Colorado River cutthroat trout or elk habitat.

Management Actions Within the Rock Creek Watershed (Drainage) Area of the ACEC

A No Surface Occupancy (NSO) restriction for leasable minerals and other surface-disturbing activities will be applied in the Rock Creek drainage (unless activities are for the purpose of benefiting the Colorado River cutthroat trout) (see Map 6).

Geophysical exploration activities in this area are restricted to portable methods only. The use of explosive charges will be prohibited if analysis determines that unacceptable adverse resource impacts would result.

If analysis indicates this level of protection is necessary, the drainage area will be closed to exploration and development of locatable minerals, and a withdrawal from mineral location and surface entry will be pursued.

Livestock grazing and related improvements will continue to be allowed, provided no adverse affects occur to the Rock Creek drainage.

No forest management activities will be allowed within the drainage.

The drainage will be managed as a Class I VRM area and will be closed to ORV use, including over-the-snow vehicles (43 CFR 8340.0-5).

Management Actions in the Remainder of the ACEC (Outside the Rock Creek Watershed)

Approximately 1,000 acres of the ACEC (that portion outside the drainage) will be evaluated to identify any locations where surface occupancy can be allowed. Geophysical exploration activities in this area will be evaluated on a case-by-case basis and will be restricted if analysis determines that unacceptable adverse impacts would occur to the water quality, fisheries, wildlife, recreation, or visual values in the area.

This portion of the ACEC will be open to exploration and development of locatable minerals. A plan of operations will be required for any locatable minerals activities in the area.

This portion of the ACEC will be managed as a Class II VRM area, and ORV use will be limited to existing roads and trails with seasonal restrictions to protect wintering wildlife.

Beaver Creek ACEC

Approximately 3,548 acres will be designated as the Beaver Creek ACEC.

Objective

The objectives for managing the Beaver Creek ACEC are to assure quality aquatic habitat for the sensitive Colorado River cutthroat trout and to protect elk calving habitat.

Management Actions

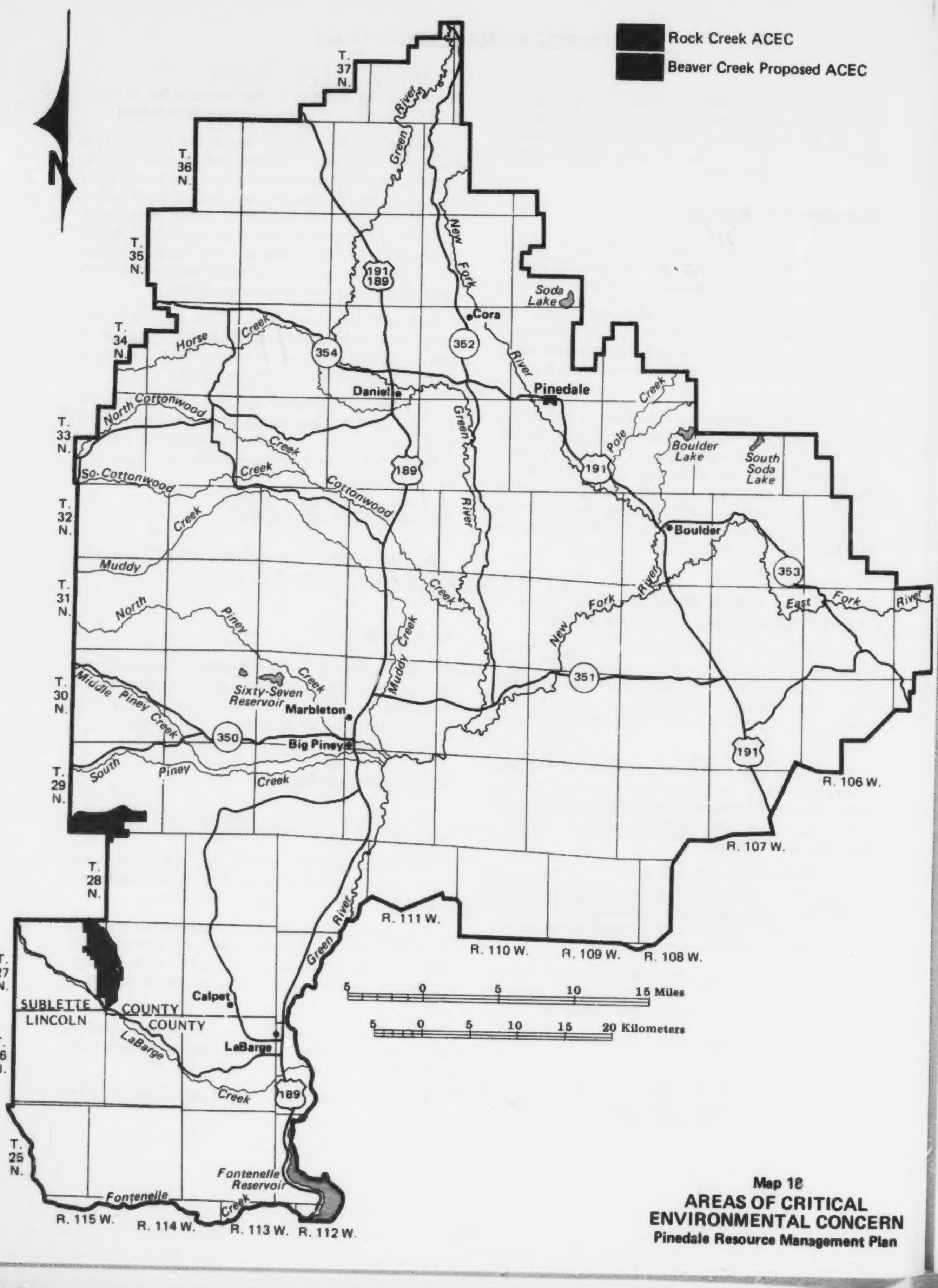
The area is open for consideration of mineral leasing and related activities.

All vehicle use, including geophysical exploration vehicles, will be limited to existing roads and trails.

This area will be closed to the use of explosive charges if analysis determines that unacceptable adverse impacts would occur to the water quality, fisheries, wildlife, recreation, or visual values in the area.

The Beaver Creek ACEC will be managed to maintain, improve, or restore riparian habitat conditions.

The ACEC will be managed as a Class III VRM area.



Map 18

AREAS OF CRITICAL ENVIRONMENTAL CONCERN

Pinedale Resource Management Plan

A detailed activity plan will be prepared to establish guidelines for uses which could affect or jeopardize habitat quality for the Colorado River cutthroat trout and elk calving. Management prescriptions in the activity plan will include identifying specific transportation routes to reduce the potential for spills of toxic materials, and needs for seasonal use or other types of restrictions, in compliance with the decisions stated above.

Surface disturbance within 1,000 feet of the streams and on slopes of 25 percent or greater will be prohibited.

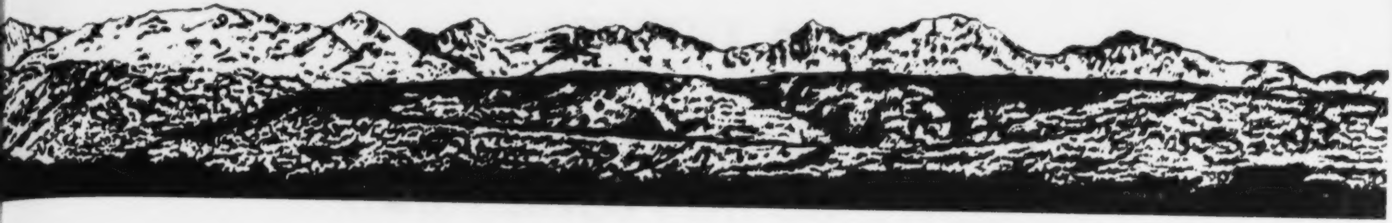
Partial timber cutting will be allowed provided that no adverse impacts will occur to the Colorado River cutthroat trout. Clearcutting or road construction within 1,000 feet of Beaver Creek will not be allowed. Exceptions will be granted only if additional site-specific analysis verifies that such actions will not adversely affect crucial Colorado River cutthroat trout habitat.

Roads and rights-of-way will follow existing alignments unless design criteria will preclude adverse impacts to the trout and elk calving habitat.

Stream crossings will be limited to lower elevations and gentler slopes.

Use of equipment and vehicles, including geophysical exploration activities, will be allowed if consistent with the objectives of the ACEC.

APPENDICES



APPENDIX A-1

WYOMING BLM STANDARD MITIGATION GUIDELINES FOR SURFACE-DISTURBING ACTIVITIES

INTRODUCTION

Appendix C-1 of the draft RMP/EIS has been revised and reprinted in this document (this appendix) to clarify the meaning, intent, and use of the information presented. The evolution of these guidelines is described, from their beginnings as oil and gas lease stipulations to broader use for other land uses and how they are used in land use planning.

About three years ago, BLM developed the "Wyoming BLM Standard Oil and Gas Lease Stipulations." During implementation, it was recognized that various land uses, other than those related to oil and gas exploration and development, should be subject to similar kinds of environmental protection requirements. Using the standard oil and gas lease stipulations as a basis, development of the "Wyoming BLM Standard Mitigation Measures for Surface-Disturbing Activities" began.

The term "guidelines" better describes the intent and use of these mitigation standards than the terms "stipulations" or "measures." These guidelines are primarily for the purpose of attaining statewide consistency in how requirements are determined for avoiding and mitigating environmental impacts and resource and land use conflicts. Consistency in this sense does not mean that identical requirements would be applied for all similar types of land use activities that may cause similar types of impacts. Nor does it mean that the requirements or guidelines for a single land use activity would be identical in all areas.

There are two ways the standard mitigation guidelines are used in the RMP/EIS process: 1) as part of the planning criteria in developing the RMP alternatives, and 2) in the analytical processes of both developing the alternatives and analyzing the impacts of the alternatives. In the first case, an assumption is made that any one or more of the standard mitigations will be appropriately included as conditions of relevant actions being proposed or considered in each alternative. In the second case, the standard mitigations are used 1) to develop a baseline for measuring and comparing impacts among the alternatives; 2) to identify other actions and alternatives that should be considered, and 3) to help determine whether more stringent or less stringent mitigations should be considered.

Some of the seasonal restrictions in the standard oil and gas lease stipulations contain the statement, "This limitation does not apply to long-term maintenance and operation of producing wells." These stipulations were developed specifically for application to oil and gas leases at the time of issuance. At lease issuance, the only action that can be generally contemplated is the possibility that exploratory drilling may occur somewhere on the lease area. Unfortunately, the provision has been interpreted to mean that the seasonal restriction disappears at the operational stage (i.e., if a producing well is attained). It must be understood that at both the exploration stage and the development stage, additional site specific environmental analyses are conducted and any needed restrictions or mitigations identified become part of the development or operational plan. For example, wells may continue to produce, but related activity may be limited. Thus, it is possible for such seasonal restrictions to be applicable to maintenance and operation of producing wells, if supported by the environmental analyses. The matter has further been confused by using the oil and gas stipulations to develop the more broadly applicable standard mitigations, by extending this provision to "...extended long-term operation and maintenance of the project." This is not appropriate for the broader context of the standard mitigation guidelines and the wording has been changed accordingly.

The RMP/EIS does not decide or dictate the exact wording or inclusion of these guidelines. Rather, the standard guidelines were used in the RMP/EIS process as a tool to help develop the RMP alternatives and to provide a baseline for comparative impact analysis in arriving at RMP decisions. These guidelines will be used in the same manner in analyzing activity plans and other site specific proposals. These guidelines and their wording are matters of policy. As such, specific wording is subject to change primarily through administrative review, not through the RMP/EIS process. Any further changes that may be made in the continuing refinement of these guidelines and any development of program specific standard stipulations will be handled in another forum, including appropriate public involvement and input.

PURPOSE

The purposes of the "Standard Mitigation Guidelines" are 1) to reserve, for the BLM, the right to modify the operations of all surface-disturbing activities as part of the statutory requirements for environmental protection, and 2) to inform a potential lessee, permittee, or operator of the requirements that must be met when using BLM-administered public lands. These guidelines have been written to provide a standard format that will allow for 1) their direct use as stipulations, and 2) the addition of specific or specialized mitigation following the submission of a detailed plan of development, or other project proposal, and an environmental analysis.

Those resource activities or programs currently without a standardized set of permit or operation stipulations can use the mitigation guidelines as conditions of approval or as a baseline for developing specific stipulations for a given activity or program.

Because use of the mitigation guidelines was integrated into the RMP/EIS process and will be integrated into the site specific environmental analysis process, the application of stipulations derived through the guidelines will provide more consistency with planning decisions and plan implementation than has occurred in the past. Application of the standard mitigation guidelines to all surface and other human presence disturbance activities on BLM-administered public lands will provide more uniformity in mitigation than has occurred in the past.

1. Surface Disturbance Mitigation Guideline

Surface disturbance will be restricted in any of the following areas or conditions. Modifications to this limitation may be approved in writing by the Authorized Officer.

a. Slopes in excess of 25 percent.

b. Within important scenic areas identified in a land use plan (Class I and II Visual Resource Management Areas).

c. Within 500 feet of surface water and(or) riparian areas.

d. Within either one-quarter mile or the visual horizon (whichever is closer) of historic trails.

e. Construction with frozen material or during periods when the soil material is saturated, frozen, or when watershed damage is likely to occur.

Guidance

The intent of the SURFACE DISTURBANCE MITIGATION GUIDELINE is to inform interested parties (potential lessees, permittees, or operators) that when one or more of the five (1a. through 1e.) conditions exists, surface-disturbing activities will be restricted or prohibited, unless or until the permittee or their designated representative and the surface management agency (SMA) arrive at an acceptable plan for mitigation of anticipated impacts. This negotiation will occur prior to development.

Specific criteria (e.g., 500 feet from water) have been established, based upon the best information available. However, such items as geographical areas and seasons must be delineated at the field level.

Exception, waiver, or modification of requirements developed from this guideline must be based upon environmental analysis of proposals (e.g., plans of development, plans of operation, Applications for Permit to Drill) and, if necessary, must allow for other mitigation to be applied on a site specific basis.

2. Wildlife Mitigation Guideline

a. To protect important big game winter habitat, activities or surface use will not be allowed from November 15 to April 30 within certain areas encompassed by the authorization. The same criteria applies to defined big game birthing areas from May 1 to June 30.

This limitation may or may not apply to extended long-term operation and maintenance of a developed project, pending environmental analysis of any operational or production aspects.

Modifications to this limitation in any year may be approved in writing by the Authorized Officer.

b. To protect important raptor and(or) sage and sharp-tailed grouse nesting habitat, activities or surface use will not be allowed from February 1 to July 31 within certain areas encompassed by the authorization. The same criteria applies to defined raptor and game bird winter concentration areas from November 15 to April 30. This limitation may or may not apply to extended long-term operation and maintenance of a developed project, pending environmental analysis of any operational or production aspects.

Modification to this limitation in any year may be approved in writing by the Authorized Officer.

c. No activities or surface use will be allowed on that portion of the authorization area identified within (legal description) for the purpose of protecting (e.g., **sage/sharp-tailed grouse breeding grounds, and(or) other species/ activities)** habitat.

Modifications to this limitation in any year may be approved in writing by the Authorized Officer.

d. Portions of the authorized use area legally described as (*legal description*), are known or suspected to be essential habitat for (*Name*) which is a threatened/endangered species. Prior to conducting any onsite activities, the lessee/permittee will be required to conduct inventories or studies in accordance with BLM and U.S. Fish and Wildlife Service (USFWS) guidelines to verify the presence or absence of this species. In the event that (**Name**) occurrence is identified, the lessee/ permittee will be required to modify operational plans to include the protection requirements of this species and its habitat (e.g., seasonal use restrictions, occupancy limitations, facility design modifications).

Guidance

The WILDLIFE MITIGATION GUIDELINE is intended to provide two basic types of protection, seasonal restriction (a and b) and prohibition of activities or surface use (c). Item (d) is specific to situations involving threatened and endangered species. Legal descriptions will ultimately be required and should be measurable and legally definable. There are no minimum subdivision requirements at this time. The area delineated can and should be defined as necessary, based upon current biological data, prior to the time of processing an application and issuing the use authorization. The legal description must eventually become a condition for approval of the permit, plan of development, and(or) other use authorization.

The seasonal restriction section identifies three example groups of species and delineates three similar time frame restrictions. The big game species including elk, moose, deer, antelope, and bighorn sheep all require protection of crucial winter range between November 15 and April 30. Elk and bighorn sheep also require protection from disturbance from May 1 to June 30, when they typically occupy distinct calving and lambing areas. Raptors include eagles; accipiters; falcons (peregrine, prairie, and merlin); buteos (ferruginous and swainson's hawks); osprey; and burrowing owls. The raptors and sage and sharp-tailed grouse require nesting protection between February 1 and July 31. The same birds often require protection from disturbance from November 15 through April 30 while they occupy winter concentration areas.

Item 2c, the prohibition of activity or surface use, is intended for protection of unique wildlife habitat areas or values within the use area. These areas or values must be factors that limit life-cycle activities (e.g., sage grouse strutting grounds, known threatened and endangered species habitat) that cannot be protected using seasonal restrictions.

Exception, waiver, or modification of requirements developed from this guideline must be based upon environmental analysis of proposals (e.g., plans of development, plans of operation, Applications for Permit to Drill) and, if necessary, must allow for other mitigation to be applied on a site specific basis.

3. Cultural Resource Mitigation Guideline

When a proposed discretionary land use has potential for affecting the characteristics which qualify a cultural property for the National Register of Historic Places, mitigation will be considered. In accordance with Section 106 of the Historic Preservation Act, procedures specified in 36 CFR 800 will be used in consultation with the State Historic Preservation Officer (SHPO) and the Advisory Council on Historic Preservation in arriving at determinations regarding the need and type of mitigation to be required.

Guidance

The preferred strategy for treating potential adverse effects on cultural properties is "avoidance." If avoidance involves project relocation, the new project area may also require cultural resource inventory. If avoidance is imprudent or unfeasible, appropriate mitigation may include excavation (data recovery), stabilization, monitoring, protection barriers and signs, or other physical and administrative measures.

Reports documenting results of cultural resource inventory, evaluation, and the establishment of mitigation alternatives (if necessary) shall be written according to standards contained in BLM Manuals, the cultural resource permit stipulations and in other policy issued by the BLM. These reports must provide sufficient information for Section 106 consultation. Reports shall be reviewed for adequacy by the appropriate BLM archaeologist. If cultural properties on, or eligible for, the National Register are located within these areas of potential impact and cannot be avoided, the Authorized Officer shall begin the Section 106 consultation process in accordance with the procedures contained in 36 CFR 800.

Mitigation measures shall be implemented according to the mitigation plan approved by the BLM Authorized Officer. Such plans are usually prepared by the land use applicant's contract archaeologist according to BLM specifications. Mitigation plans will be reviewed as part of Section 106 consultation for National Register eligible or listed properties. The extent and nature of recommended mitigation shall be commensurate with the significance of the cultural resource involved and the anticipated extent of damage. Reasonable costs for mitigation will be borne by the land use applicant. Mitigation must be cost effective and realistic. It must consider project requirements and limitations, input from concerned parties, and be BLM approved or BLM formulated.

Mitigation of paleontological and natural history sites will be treated on a case-by-case basis. Factors such as site significance, economics, safety, and project urgency must be taken into account when making a decision to mitigate. Authority to protect (through mitigation) such values is provided for in FLPMA, Section 102(8). When avoidance is not possible, appropriate mitigation may include excavation (data recovery), stabilization, monitoring, protection barriers and signs, or other physical and administrative protection measures.

4. Special Resource Mitigation Guideline

To protect (resource value), activities or surface use will not be allowed (i.e., **within a specific distance of the resource value** or **between date-to-date**) in (*legal subdivision*).

This limitation may or may not apply to extended long-term operation and maintenance of a developed project, pending environmental analysis of any operational or production aspects.

Modifications to this limitation in any year may be approved in writing by the Authorized Officer.

Example Resource Categories (Select or Identify Category and Specific Resource Value):

a. Recreation areas.

b. Special natural history or paleontological features.

c. Special management areas.

d. Sections of major rivers.

e. Prior existing rights-of-way.

f. Occupied dwellings.

g. Other (Specify).

Guidance

The SPECIAL RESOURCE MITIGATION GUIDELINE is intended for use only in site-specific situations where one of the first three general mitigation guidelines will not adequately address the concern. The resource value, location, and specific restriction must be clearly identified. A detailed plan addressing specific mitigation and special restrictions on development will be required prior to development and will become a condition for approval of the permit, plan of development, or other use authorization.

Exception, waiver, or modification of requirements developed from this guideline must be based upon environmental analysis of proposals (e.g., plans of development, plans of operation, Applications for Permit to Drill) and, if necessary, must allow for other mitigation to be applied on a site specific basis.

5. No Surface Occupancy Guideline

No surface occupancy will be allowed on the following described lands (*legal subdivision/area*) because of (*resource value*).

Example Resource Categories (Select or Identify Category and Specific Resource Values):

a. Recreation areas, (e.g., campgrounds, historic trails, national monuments).

b. Major reservoirs/dams.

c. Special management areas (e.g., ACEC, known threatened and endangered species habitat, wild and scenic rivers).

d. Other (Specify).

Guidance

The NO SURFACE OCCUPANCY (NSO) MITIGATION GUIDELINE is intended for use only when other mitigation is determined insufficient to adequately protect the public interest and is the only alternative to "no development" or "no leasing." The legal subdivision and resource value of concern must be identified and be tied to an NSO land use planning decision.

Waiver of or exception(s) to the NSO requirement will be subject to the same test used to initially justify its imposition. If, upon evaluation of a site-specific proposal, it is found that less restrictive mitigation would adequately protect the public interest or value of concern, then a waiver or exception to the NSO requirement is possible. The record must show that because conditions or uses have changed, less restrictive requirements will protect the public interest. An environmental analysis must be conducted and documented (EA or EIS, as necessary) in order to provide the basis for a waiver or exception to an NSO planning decision. If the waiver or exception is found to be consistent with the intent of the planning decision, they may be granted. If found inconsistent with the intent of the planning decision, a plan amendment would be required before the waiver or exception could be granted.

When considering the "no development" or "no leasing" option, a rigorous test must be met and fully documented in the record. This test must be based upon stringent standards described in the land use planning document. Since rejection of all development rights is more severe than the most restrictive mitigation requirement, the record must show that consideration was given to development subject to reasonable mitigation, including No Surface Occupancy. The record must also show that other mitigation was determined to be insufficient to adequately protect the public interest. A "no development" or "no leasing" decision should not be made solely because it appears that conventional methods of development would be unfeasible, especially where an NSO restriction may be acceptable to a potential permittee. In such cases, the potential permittee should have the opportunity to decide whether or not to go ahead with the proposal (or accept the use authorization), recognizing that an NSO restriction is involved.

Special Note Concerning Clarification of Application of Some of the Mitigation Guidelines Relative to the National Wildlife Federation and Enron Protests on the Proposed Resource Management Plan

The surface disturbance guidance for constructing with frozen material or during periods when soil material is saturated is applied mainly to emphasize the Bureau's responsibility to insure that good construction practices occurs on the public lands. Problems with sedimentation, siltation, and salinity are of national concern and mitigation has been recognized as necessary at the project level. It is also recognized that careless or improper construction results in loss of soil and impacts water quality. Similarly, good design and construction practices can mitigate concerns for protection of soil, watershed, and other resources.

Because of these concerns, winter construction should be avoided. Much depends upon the type of action and the project design. Proper design and implementation of protection measures can lead to benefits in constructing during the winter. The permittee is required to submit a plan addressing these concerns and provide specific measures for construction. The Bureau will consider any project proposal, but the burden is on the applicant to describe the design and construction techniques. If project designs and operations can mitigate environmental concerns, construction may be allowed.

In many cases, such construction may take place, especially in developed areas where projects are usually restricted to a small area and have short construction times. This is particularly the case for short flowlines and electric lines. Roads require more consideration. Hauling in materials to form a suitable road base could become an option. Structural fills should not be built with frozen or saturated material, as compaction cannot be adequate and the fill can fail. Construction of structural fills in such conditions cannot meet reasonable construction standards. Reservation of topsoil becomes another concern as topsoil cannot be readily separated and stockpiled from frozen material. Stockpiling of topsoil is necessary for reclamation procedures. Larger projects would require indepth review and consideration.

The mitigation restricting surface disturbance from November 15 to April 30 is applied to winter activities that would occur in crucial (and in specific cases such as a portion of the Bench Corral and Mesa areas, noncrucial) wildlife winter ranges. This is a restriction, not an exclusion. The purpose of this mitigation is to ensure quality habitat for wintering wildlife.

Application of the surface disturbance stipulation is generally applied to drilling and completion activities. This includes all activities associated with placing a well "on line" (e.g., drilling, completion, construction of production facilities, pipelines, power supplies, pits), or plugging and abandonment procedures. There are situations, however, such as the Riley Ridge project, where operational/maintenance activities are restricted or modified during the winter period. This type of special mitigation is determined during the project planning stage (EA or EIS). Therefore it behooves the operator to schedule such activities within the available "window" of operations unless an exception is granted.

Consideration is given to developed areas and the fact that animals can become acclimated to disturbance and various types of activities. However, cumulative impacts of existing disturbance, new disturbance, and overall habitat loss must be considered site specifically. Studies have indicated that animals are also affected by a disturbance factor, where traffic and motorized activities tend to increase the actual impacts to the animals. This factor increases the actual amount of habitat acreage lost and is particularly applicable to crucial ranges.

Many factors must be considered when analyzing the affects of a project occurring in crucial winter ranges during crucial winter periods. These factors include winter conditions (snow levels, wind chill, etc.), animal condition, other simultaneous ongoing activities, if sufficient habitat for displaced animals exists within the occupied habitat; type and duration of activities, and whether other mitigations are available.

Generally, ongoing development activity is expected to be completed before it enters into the restricted period. Applications for exception would be considered; if impacts to winter wildlife populations could be mitigated or found acceptable, or the animals were not utilizing the winter range, activities could be allowed. This has to be analyzed and acceptable impacts and mitigations are documented. Environmental analysis, such as a field development or APD-related EA, may also identify areas or conditions that make it critical to cease ongoing operations during the restricted period. The factors listed previously would be taken into account in the analysis, prior to making specific determinations for shutdown of ongoing activities.

APPENDIX A-2

ELK FEED GROUND LOCATIONS

	Surface Acres[1]		
Feedground	**Federal**	**Private**	**Legal Description**
Scab Creek	2,240		T. 33 N., R. 106 W. sec. 18, N½, SE¼, E½SW¼, SW¼SW¼ sec. 19, N½, E½SE¼, W½SW¼ T. 33 N., R. 107 W. sec. 13, N½, SE¼SE¼ sec. 14, NE¼ sec. 24, All
		960	T. 33 N., R. 106 W. sec. 18, NW¼SW¼ sec. 19, W½SE¼, E½SW¼ T. 33 N., R. 107 W. sec. 13, SW¼, W½SE¼, NE¼SE¼ sec. 14, SE¼ sec. 23, E½
Fall Creek	160		T. 33 N., R. 108 W. sec. 1, N½N½
		640	T. 33 N., R. 108 W. sec. 1, S½N½, S½ sec. 12, N½N½
Soda Lake		1,840	T. 35 N., R. 109 W. sec. 26, NW¼, N½SW¼ sec. 27, W½, N½SE¼, SW¼SE¼ sec. 34, All sec. 35, NW¼NW¼, S½NW¼, SW¼ T. 34. N., R. 109 W. sec. 2, N½NW¼ sec. 3, N½N½
Franz	680		T. 36 N., R. 112 W. sec. 14, SE¼, W½NE¼, N½NW¼ sec. 15, NW¼NW¼ sec. 23, E½
		1,400	T. 36 N., R. 112 W. sec. 11, SW¼, W½SE¼ sec. 14, SW¼, S½NW¼ sec. 15, E½, SW¼, E½NW¼, SW¼NW¼ sec. 23, W½

APPENDIX A-2 (Continued)
ELK FEEDGROUND LOCATIONS

	Surface Acres[1]		
Feedground	Federal	Private	Legal Description
Black Butte	320		T. 36 N., R. 110 W. sec. 6, SW¼, W½SE¼, SE¼NW¼ T. 37 N., R. 110 W. sec. 33, NW¼SW¼
		1,400	T. 36 N., R. 110 W. sec. 6, N½N½, SW¼NW¼, SW¼NE¼ T. 37 N., R. 110 W. sec. 33, SE¼, S½NE¼, E½SW¼, SW¼SW¼ sec. 34, S½N½, S½ sec. 35, W½
Jewett		640	T. 34 N., R. 114 W. sec. 35
Bench Corral	1,920		T. 31 N., R. 112 W. secs. 1, 2 T. 32 N., R. 112 W. sec. 35
North Piney	1,080		T. 31 N., R. 114 W. sec. 29, N½, N½SW¼, NW¼SE¼ sec. 30
Finnegan	1,920		T. 30 N., R. 114 W. sec. 17, W½SW¼ sec. 18 sec. 19 sec. 20, NW¼, N½SW¼ sec. 30, N½
		400	T. 30 N., R. 114 W. sec. 20, E½, S½SW¼
Total federal surface acres and federal minerals	8,320		
Total private surface acres and federal minerals	7,280		
Total acres	15,600		

[1] All mineral acreages are federally administered.

APPENDIX A-3

STANDARD PRACTICES APPLIED TO SURFACE-DISTURBING ACTIVITIES

The following are general standard operating procedures applied to surface-disturbing activities. These measures are applied, when necessary, to reduce environmental impacts. Some projects may require construction use plans and(or) erosion control revegetation and restoration plans (ERRP).

ROADS

Recognized roads, as shown on the Rock Springs District Office Transportation Plan, will be used when the alignment is acceptable for the proposed use. Generally, roads will be required to follow natural contours; be constructed in accordance with standards as described in BLM Road Standards and BLM Manual section 9113; and be reclaimed to BLM standards.

To control or reduce sediment from roads, guidance involving proper road placement and buffer strips to stream channels, graveling, proper drainage, seasonal closure, and in some cases, redesign or closure of old roads will be developed when necessary. Construction may also be prohibited during periods when soil material is saturated, frozen, or when watershed damage is likely to occur.

On newly constructed roads and permanent roads, the placement of topsoil, seeding, and stabilization will be required on all cut and fill slopes (unless conditions prohibit this (e.g., rock). No unnecessary side-casting of material (e.g., maintenance) on steep slopes will be allowed. Snow removal plans may be required while a road is used for access so that snow removal does not adversely affect reclamation efforts or resources adjacent to the road.

Reclamation of abandoned roads will include requirements for reshaping, recontouring, resurfacing with topsoil, installation of water bars, and drill seeding on the contour. The removal of structures such as bridges, culverts, cattleguards, and signs usually will be required. Stripped vegetation will be spread over the disturbance for nutrient recycling, where practical. Fertilization or fencing of these disturbances will not normally be required. Additional erosion control measures (e.g., fiber matting) and road barriers to discourage travel may be required.

Road closures may be implemented during crucial periods (e.g., wildlife winter periods, spring runoff, and calving and fawning seasons).

WELL PADS AND FACILITIES

Abandoned sites must be satisfactorily rehabilitated by the lessee in accordance with a plan approved by BLM.

On well pads and larger locations, special attention will be given to sections of the surface use plan covering reclamation. This plan will include objectives for successful reclamation including: soil stabilization, plant community composition, and desired vegetation density and diversity.

No surface disturbance is allowed on slopes in excess of 25 percent unless erosion controls can be ensured and adequate revegetation is expected. Detailed engineering proposals and revegetation and restoration plans will be required in these areas.

On producing locations, operators will be required to reduce slopes to original contours (not to exceed 3:1 slopes). Terraces or elongated water breaks (erosion control measures) will be required after slope reduction. Facilities will be required to approach zero runoff from the location until the area is stabilized (to avoid contamination and water quality degradation downstream). All unused portions of facilities or producing well locations will be resurfaced with topsoil and seeded with soil stabilizing species. Mulching, erosion control measures, and fertilization may be required to achieve acceptable stabilization.

Abandoned locations will be required to be recontoured to conform to the surrounding terrain. Construction of erosion and runoff control measures and placement of topsoil will be required after recontouring.

The collection and analysis of soil samples from disturbed areas may be required to determine reclamation potential, appropriate seed mixtures, and nutrient deficiencies. This will be the responsibility of the grantee or lessee. Testing (as determined by BLM) may include: pH, mechanical analysis, or salt, nitrogen, phosphorus, and(or) potassium content.

Fertilization may be required if there is evidence of a nutrient deficiency. If needed to produce adequate germination and growth, the topsoil and selected seed species would be inoculated with soil microorganisms. The site will be drill seeded or broadcast (if slopes exceed 30 percent or contain 35 percent surface rock content). Mulching and fencing (unless deemed unnecessary due to low grazing pressure) will be required. Fences will be required to remain until reclamation is successful.

Snow fences, placed to increase snowfall depth over a reclaimed area, and reshaping to create shallow depressions (to catch surface runoff) may be required in areas receiving 10 inches or less of annual precipitation.

No sour gas lines will be located closer than one mile to a populated area or sensitive receptor. The applicants must use the best available engineering design (e.g., alignment, block valve type and spacing, pipe grade), best construction techniques (e.g., surveillance, warning signs) as approved by the Authorized Officer to minimize both the probability of rupture and radius of exposure in the event of an accidental pipeline release of sour gas. A variance from the one-mile distance may be granted by the Authorized Officer based on detailed site-specific analysis that would consider meteorology, topography, and special pipeline design and(or) construction measures. This analysis would ensure that populated areas and sensitive receptors would not be exposed to an increased level of risk.

PIPELINES AND COMMUNICATION LINES

Existing crowned and ditched roads will be used for access where possible to minimize surface disturbances.

Where possible, clearing of pipeline and communication line rights-of-way will be accomplished with the least degree of disturbance to topsoil. Where topsoil removal is necessary, it will be stockpiled (wind-rowed) and respread over the disturbance after construction and backfilling are completed. Vegetation removed from the right-of-way will also be required to be respread to provide protection, nutrient recycling, and a natural seed source.

To promote soil stability, the compaction of backfill will be required (not to extend above the original ground level after the fill has settled). Water bars, mulching, and terracing will be required, as needed, to minimize erosion. Instream protection structures (e.g., drop structures) may be required in drainages crossed by a pipeline to prevent erosion.

The fencing of linear disturbances near livestock watering areas (distance determined on site-specific basis) may be required.

If linear facilities follow the same right-of-way for all or part of the route, they will generally be required to be constructed so that only one reclamation effort is required. Generally, they will be required to be constructed either concurrently or during the same field season.

AIR QUALITY PROTECTION MEASURES

As projects are planned that include possible major sources of air pollutant emissions, special air quality protection related stipulations are added to BLM permits and rights-of-way grants. In addition, the BLM coordinates with the Wyoming Department of Environmental Quality/Air Quality Division (WDEQ/AQD) during the process of analysis that may lead to the issuance of permits to construct emission sources. This coordination often results in the technical review of applications for permits and(or) identification of additional stipulations to be applied to these permits.

The release of hazardous air contaminants, particularly the emissions from sour natural gas sweetening plants (a process used to remove H_2S from natural gas resulting in the emission of sulfur dioxide), is a public concern. BLM requires industry to prepare detailed analyses of risks involved with the development of sour gas pipelines and treatment facilities. These analyses are designed to project impacts both to the public and to resource values. Plant siting will be scrutinized to provide for public safety and to ensure that only areas with the least potential for the transport of pollutants to the wilderness are considered. To aid in achieving these goals, BLM will consult with the State of Wyoming, the U.S. Forest Service, industry, and the public to ensure that the most technically sound, environmentally balanced, and economically feasible decisions are made.

APPENDIX A-3

RECLAMATION

The objectives for reclamation efforts emphasize: 1) stabilization through establishment of ground cover; 2) establishment of vegetation consistent with land use planning; and 3) reduction of visual contrast.

Reclamation will be required on all disturbed areas. On roads left intact for access purposes, the stabilization of all disturbed area except the running surface will be required.

Only areas needed for construction will be allowed to be disturbed. Reclamation (by the lessee or grant holder) will be initiated as soon as possible after a disturbance occurs. Continued efforts will be required until satisfactory vegetation cover is established and the site is stabilized.

Topsoil

Before a surface disturbing activity is authorized, the BLM will determine total topsoil depth. The amount of topsoil to be removed, along with topsoil placement areas, will be specified in the authorization. The uniform distribution of topsoil over the area to be reclaimed will be required, unless conditions warrant a varying depth. On large surface-disturbing projects (e.g., gas processing plants) topsoil will be stockpiled, mulched, and seeded to reduce erosion. Where feasible, topsoil stockpiles will be required to be designed to maximize surface area to reduce impacts to soil microorganisms. Areas used for spoil storage will be required to be stripped of topsoil before spoil placement. The replacement of topsoil after spoil removal will be required.

Temporary disturbances which do not require major excavation (e.g., pipelines and communication lines) may be stripped of vegetation to ground level using mechanical treatment, leaving topsoil intact and root mass relatively undisturbed.

Seeding

Only plant species adaptable to local soil and climatic conditions will be utilized in revegetation efforts. On all areas to be reclaimed, seed mixtures will be required to be site-specific and will be required to include species promoting soil stability. Livestock palatability and wildlife habitat needs will be given consideration in seed mix formulation. Interseeding, secondary seeding, or staggered seeding may be required to accomplish revegetation objectives. A friable, but firm seed bed will be required prior to seeding. Drill seeding will be required unless conditions indicate that broadcast seeding is necessary (e.g., greater than 30 percent slope or greater than 35 percent rock content). During rehabilitation of areas in important wildlife habitat, provision will be made for the establishment of native browse and forb species, if determined to be beneficial for the habitat affected.

Follow-up seeding or corrective erosion control measures may be required on areas of surface disturbance which experience reclamation failure.

Treatments

Trees, shrubs, and ground cover (not to be cleared from rights-of-way) will require protection from construction damage. Backfilling to preconstruction condition (in a similar sequence and density) will be required. The restoration of normal surface drainage will also be required.

Any mulch used will be free from mold, fungi, or noxious weed seeds. Mulch may include native hay, small grain straw, wood fiber, live mulch, cotton, jute, synthetic netting, and rock. Straw mulch should contain fibers long enough to facilitate crimping and provide the greatest cover.

The grantee or lessee will be responsible for the control of all noxious weed infestations on surface disturbances. Control measures will adhere to those allowed in the Rock Springs District Noxious Weed Control EA (USDI 1982a) or the Regional Northwest Area Noxious Weed Control Program EIS (USDI 1987).

APPENDIX A-4

OIL AND GAS OPERATIONS

Geophysical Management (Permitting Process)

Geophysical operations on and off an oil and gas lease are reviewed by the federal surface management agency.

The responsibilities of the geophysical operator and the BLM District Manager during geophysical operations are described in USDI 1978:

1. Geophysical Operator - The operator is required to file, in person or by mail, a "Notice of Intent to Conduct Oil and Gas Exploration Operations" for all operations on public lands administered by BLM. Form WY-04-3045-6 is available in all BLM District Offices. The notice includes maps showing the location of the line, and all access routes, and must be filed in the BLM Resource Area Office before operations begin.

   The operator is also required to be bonded. A copy of the bond or other evidence of satisfactory bonding shall accompany the "Notice of Intent." Proper bonding can include a nationwide or statewide oil and gas bond with a rider for geophysical exploration or a $5,000 individual surety bond filed with the District Manager.

   Once the Notice of Intent has been filed, a prework conference or field inspection (if required) is conducted. Any special written instructions, orders, or approvals that may be given by the area manager at this prework conference must be complied with by the operator.

   Surface-disturbing activities, such as bulldozing, require written approval by the area manager. Operators may be required to submit an archeological survey if dirt work is contemplated. The operator is required to comply with all applicable federal, state, and local laws such as the Federal Land Policy and Management Act of 1976, Historic Preservation Act of 1966, Threatened and Endangered Species Act, etc.

   Any changes in the original Notice of Intent must be submitted in writing to the area manager. Written approval must be secured before activities proceed.

   When operations are completed, the operator is required to file a Notice of Completion of Geophysical Exploration, after any required rehabilitation work is completed.

2. BLM Area Manager - The area manager is required to contact the operator immediately after the Notice of Intent is filed and explain the terms of the Notice, including the operating procedures to be followed, all current laws, and all BLM administrative requirements. A prework conference or field inspection is conducted and written instructions or orders given to the operator. The area manager is responsible for the examination of resource values and the development of appropriate surface protection and reclamation measures.

   Final inspection following filing of the Notice of Completion is also required of the area manager.

State Standards

In Wyoming, the operator is required to register with the State. State standards for plugging shot holes, personnel safety, etc., will be followed.

Mitigation

Standard surface disturbance mitigations are applied as necessary (Appendix A-1) in accordance with the RMP decisions.

The most critical management practice is compliance monitoring during and after seismic activity. Compliance inspections during the operation ensure that stipulations are being followed. Compliance inspections upon completion of work ensure that the lines are clean and the drill holes are properly plugged.

OIL AND GAS LEASING

The Mineral Leasing Act provides that all public lands are open to oil and gas leasing unless a specific order has been issued to close an area. Based on the Federal Onshore Oil and Gas Leasing

Reform Act of 1987, all leases must be exposed to competitive interest.

Lands which do not receive competitive interest will be available for noncompetitive leasing for a period not to exceed two years.

Competitive sales will be held at least quarterly and by oral auction. Competitive leases are issued for a term of 5 years or for as long as oil and(or) gas is produced. Noncompetitive leases are issued for a term of 10 years, or as long as production continues.

The federal government receives yearly rental fees on nonproducing leases. Royalty on production is received on producing leases, one half of which is returned to the state of Wyoming.

DRILLING PERMIT PROCESS

A federal lessee or operator is governed by procedures set forth by the Onshore Oil and Gas Order No. 1, "Approval of Operations on Onshore Federal and Indian Oil and Gas Leases," issued under 43 CFR 3164. Operating Order No. 1 lists the following as pertinent points to be followed by the lessee or operator: notice of staking (NOS); application for permit to drill (APD), which includes a multi-point surface use and operations plan; approval of subsequent operations; well abandonment; water well conversion; responsibilities on privately owned surface; and reports and activities required after well completion.

1. Notice of Staking (NOS) - After the company makes the decision to drill a well, they must decide whether to submit an NOS or application for permit to drill (APD). The NOS consists of an outline of what the company intends to do including a location map and sketched site plan. The NOS is used to review any conflicts with known critical resource values, and also used at the on-site inspection to provide the preliminary data to assess what additional items are necessary to complete the APD.
2. Application for Permit to Drill (APD) - The operator or lessee may submit a completed APD in lieu of notice of staking, but in either case no surface activity is conducted in conjunction with the drilling until the APD is approved by the BLM.

If the APD option is used, an APD is submitted to the BLM and a field inspection is held with the operator and any other interested party. The purpose of the presite field inspection is to evaluate the operator's plan, to assess the situation for possible impacts (surface and subsurface), and to formulate resource protection stipulations. To lessen environmental impacts, a site may be moved, reoriented, or redimensioned, within certain limits, at the presite inspection. The proposed access road may also be rerouted (USDI 1981a). If necessary, site-specific mitigations are added to the APD for protection of surface and(or) subsurface resource values in the vicinity of the proposed activity.

The BLM is responsible for preparing environmental documentation necessary to satisfy the National Environmental Policy Act requirements and provide any mitigation measures needed to protect the affected resource values.

Consideration is also given to the protection of ground water resources. Plugging and abandonment procedures include measures to protect good quality ground water from contamination by hydrocarbons or poorer quality water. Drilling procedures for new wells also address ground water protection. Such protection is described in Appendix A-5.

When final approval is given by the BLM, the operator may commence construction and drilling operations. Approval of an APD is valid for one year. If construction does not begin within one year, the stipulations must be reviewed prior to approving another APD (USDI 1981a).

Issuance of Rights-of-Way

Rights-of-way are required for all facilities, tank batteries, pipelines, truck depots, powerlines, and access roads that occupy federally owned land outside the lease or unit boundary. When a third party (someone other than the oil or gas company and the federal government) constructs a facility or installation on or off the lease, a right-of-way is also required.

Plugging and Abandonment of Wells

The purpose of plugging and abandoning (P&A) a well is to prevent fluid migration between zones, to protect minerals from damage, and to restore the surface area. Each well has to be handled individually due to a combination of factors, including geology, well design limitations, and specific rehabilitation concerns. Therefore, only minimum requirements can be established initially, then modified for the individual well.

APPENDIX A-4

The first step in the P&A process is the filing of the Notice of Intent to Abandon (NIA). This will be reviewed by both the Surface Management Agency (SMA) and the BLM District Office. The NIA must be filed and approved prior to plugging a past producing well. Verbal plugging instructions can be given for plugging current drilling operations, but an NIA must be filed after the work is completed. If usable fresh water was encountered while the well was being drilled, the SMA will be allowed, if interested, to assume future responsibility for the well and the operator will be reimbursed for the attendant costs.

The operator's plan for plugging the hole is reviewed. The minimum requirements are as follows: In open hole situations, cement plugs must extend at least 50 feet above and below zones with fluid which has the potential to migrate, zones of lost circulation (this type of zone may require an alternate method to isolate), and zones of potentially valuable minerals. Thick zones may be isolated using 100-foot plugs across the top and bottom of the zone. In the absence of productive zones and minerals, long sections of open hole may be plugged with 150-foot plugs placed every 2,500 feet. In cased holes, cement plugs must be placed opposite perforations and extending 50 feet above and below except where limited by plug back depth.

A permanent abandonment marker is required on all wells unless otherwise requested by the SMA. This marker pipe is usually at least 4 inches in diameter, 10 feet long, 4 feet above the ground, and embedded in cement. The pipe must be capped with the well identity and location permanently inscribed.

The SMA is responsible for establishing and approving methods for surface rehabilitation and determining when this rehabilitation has been satisfactorily accomplished. At this point, a Subsequent Report of Abandonment can be approved.

APPENDIX A-5

CRITERIA FOR DETERMINING DEPTH OF FRESH WATER AND SURFACE CASING REQUIREMENTS

When processing an Application for Permit to Drill (APD), the geologist is required to identify the maximum depth of usable water as defined in 43 CFR 3162.5-2. Usable water is defined as that water containing 5,000 milligrams per liter or less total dissolved solids. Water of this quality is to be protected, usually by surface casing and cement.

Determining the depth to fresh water requires specific water quality data in the proposed well vicinity or geophysical log determination of water quality (by the resistivity method), depending on existing well proximity and log availability. If water quality data or logs from nearby wells are not available, the area within a two-mile radius of the proposed well is checked for water wells. If wells exist, surface casing is required to be set 200 feet below the deepest fresh water zone found in these wells or to reach a depth below the reasonably estimated level of usable water (as defined in 43 CFR 3162.5-2).

In some cases, such as shallower wells, cementing the casing/borehole annulus from total depth (of from a staging tool) up to the base level of usable water is required, rather than requiring extensive surface casing.

APPENDIX B

SUPPLEMENTAL MITIGATION MEASURES SPECIFIC TO WILDLIFE AND FIRE

OFFSITE MITIGATION (WILDLIFE)

Offsite mitigation would be considered on all larger surface-disturbing activities in big game crucial winter range and other sensitive wildlife habitat. The requirement for offsite mitigation would be applied on a case-by-case basis depending on the type and duration of the disturbance and the sensitivity of the area affected. Offsite mitigation would generally not be required for short-term disturbances, unless cumulative impacts become a concern. Plans for offsite mitigation would be required on a site-specific basis and could include prescribed burning, brush-beating, tree planting, and other methods designed to increase the productivity or utility of wildlife habitat.

FIRE MITIGATION

Guidelines for buffer areas (an area in which fire cannot spread) have been prepared to protect developed facilities from the impacts of fire. If the development is located in a grass community, a 15-foot buffer is recommended. If the development is located in a sagebrush community, a 25-foot buffer is recommended. In a juniper/tall brush community (serviceberry, aspen, cottonwood, willow), a 50-foot buffer is recommended; in a conifer community (lodgepole, spruce fir), a buffer area of 25 feet plus the height of the surrounding trees is recommended.

The emissions which may be created directly by BLM activities are mitigated by applying best management practices. For example, prescribed fires are conducted to reduce emissions by burning only at appropriate fuel moistures and windspeeds (among other factors) which reduce as much as possible the smoke created. All BLM activities that may potentially cause undesirable air quality impacts are also coordinated with the Wyoming Department of Environmental Quality, Air Quality Division (WDEQ, AQD). Permits to conduct these activities are secured (where necessary) before the activity begins, to insure compliance with all Federal, State, and local air quality laws.

APPENDIX C-1

ACRES AND AUMs BY LAND STATUS BY ALLOTMENT

Allotment		BLM		State		Private	
Number	Name	Acres	AUMs	Acres	AUMs	Acres	AUMs
2000	Daniel Ridge Individual	112	10	0	0	277	0
2002	40 Rod Common	3,557	542	18	0	4	4
2003	Homestead Individual	153	45	0	0	461	133
2004	Glascow Individual	115	24	0	0	1,320	163
2005	South LaBarge Common	100,309	10,076	7,549	1,205	7,086	843
2006	Round Valley Ryegrass Common	7,162	1,692	642	872	1,187	0
2007	Fayette Individual	1,388	270	0	0	32	6
2008	Stud Horse Common	14,175	2,173	1,280	213	0	0
2009	Fremont Butte Common	20,563	2,410	800	92	569	66
2010	Fontenelle Meadow Individual	14	56	0	0	0	0
2011	East Cora Road Individual	60	14	0	0	0	0
2012	East Cora Road Meadow	167	64	0	0	176	0
2013	Willow Lake Tracts	72	26	0	0	7	0
2014	Fish Hatchery Individual	305	56	396	0	697	0
2015	Antelope Flat Common	875	451	0	0	58	30
2016	State Section Individual	165	82	640	64	302	40
2017	Lower Pasture Individual	1,767	284	0	0	30	4
2018	Isolated Tracts Individual	509	3	0	0	2,661	0
2019	Heifer Pasture Individual	154	86	0	0	92	0
2020	Boulder Lake Common	5,567	835	0	0	346	26
2021	Boulder Creek Tracts	278	28	0	0	623	0
2022	East Fork Common	6,883	793	2,769	413	381	38
2024	Bousman Individual	5,150	755	0	0	71	0
2025	Red Canyon Common	5,758	994	616	121	349	155
2026	Desert Land Entry Individual	1,032	75	6	0	249	0
2027	Mickelson Bray Common	1,660	238	378	39	36	10
2028	Bench Corral Common Upper	14,071	2,009	636	34	74	10
2029	Ed Roe Pasture Common	391	81	0	0	0	0
2030	Horse Creek Individual	401	80	0	0	970	216
2031	Mesa Common	54,917	4,701	741	197	573	105
2032	D. Budd Deer Hill Individual	2,777	293	0	0	109	12
2033	Budd Fish Creek Individual	1,722	150	0	0	12	0
2034	Adjacent to Ranch Individual	110	26	0	0	321	118
2035	Deer Hills Individual	5,291	698	81	10	20	0
2036	Dead Indian Dome Individual	2,060	411	0	0	128	50
2037	West Individual	2,392	525	471	16	2,754	571
2038	Buyer Horse Creek Individual	1,696	351	0	0	414	67
2039	Maki Creek Individual	640	135	12	0	12	0
2040	Desert Common	130,212	10,337	4,450	348	1,255	119
2041	Chapel Individual	4,755	257	464	55	852	50
2042	Cottonwood Meadows	278	236	0	0	523	800
2043	Pole Creek Individual	1,068	66	836	84	1,645	200
2044	Fremont Lake Individual	494	40	0	0	10	54
2045	Pasture Pole Creek Individual	35	54	0	0	4	0
2046	Fall Creek Pasture	35	10	0	0	16	10
2047	Circle 9 Individual	458	63	0	0	007	40
2048	Gilligan Individual	683	107	0	0	617	150
2049	Mount Airy Common	9,434	757	1	0	16	1

APPENDIX C-1

APPENDIX C-1 (Continued)

ACRES AND AUMs BY LAND STATUS BY ALLOTMENT

Allotment		BLM		State		Private	
Number	Name	Acres	AUMs	Acres	AUMs	Acres	AUMs
2050	Burch Individual	325	37	62	10	268	53
2051	Square Top Common	38,213	4,469	1,306	237	310	25
2052	Cowley Tract	75	10	4	0	12	0
2053	Clark-Bloom Common	744	262	0	0	27	2
2054	Cora Peak Individual	775	150	0	0	122	25
2055	Lauzer Marsh Creek Individual	668	166	0	0	246	130
2056	Three Island Individual	1,167	120	0	0	20	1
2057	Dack Individual	783	90	3	0	591	0
2058	Bloom Tracts	136	38	0	0	100	278
2059	Ryegrass Individual	1,938	242	0	0	114	5
2060	Ryegrass Isolated	57	18	0	83	946	42
2061	Eubank South Labarge Individual	1,814	80	626	65	647	58
2062	Bench Corral Individual	25,546	3,428	1,410	100	1,130	42
2063	Upper Muddy Individual	5,313	1,874	654	200	169	50
2064	Camp Creek Individual	3.372	715	0	0	2	67
2065	Beecher Individual	1,446	306	0	0	2,062	462
2066	School Section Individual	1,738	158	633	40	197	12
2067	Johnson Huhtah Individual	952	136	730	94	1,484	214
2068	Muleshoe Individual	6,907	683	16	0	76	11
2069	Warren Bridge Individual	254	48	0	0	23	253
2070	Horse Creek Pasture 1	80	74	0	0	0	222
2071	Horse Creek Pasture 2	3,352	240	4	5	912	55
2072	Spade Individual	2,469	688	0	0	1	944
2073	Reardon Canyon Common	20,241	1,121	1,305	120	419	106
2074	South Piney Ranch Individual	886	92	0	0	77	0
2075	LaBarge Creek Ranch Individual	885	42	0	0	56	0
2076	Fish Creek Individual	1,791	1,597	0	0	41	0
2077	North LaBarge Common	121,016	14,501	5,212	1,621	5,485	3,276
2078	Johnson Place Meadows	15	45	0	0	0	0
2079	South Piney Place Meadows	13	39	0	0	71	0
2080	Fox LaBarge Individual	342	17	0	0	378	25
2081	Fox-Yose Common	6,310	693	598	62	237	18
2082	East Fork River Tract	21	3	0	0	0	0
2083	Sagebrush Basin Individual	2,127	126	580	13	1,025	4
2084	Bench Corral Common Lower	23,172	2,635	991	120	128	19
2085	Upper Billies Individual	8,805	2,214	0	0	162	17
2086	Guio Sections Individual	2,505	417	633	51	5,618	1,200
2087	Upper Post Individual	295	123	0	0	2,592	0
2088	Horse Creek-Ryegrass	3,682	449	0	0	0	0
2089	Hansen Tract	175	14	0	0	461	32
2090	Rief Individual	185	66	59	26	303	0
2091	LaBarge Individual	2,255	337	1	0	530	84
2094	Hicks Pinedale Individual	84	14	0	26	154	0
2095	Muddy Creek Individual	1,644	113	6	0	175	1,194
2096	Hittle Individual	237	95	0	0	37	0
2097	Cottonwood Common	2,894	345	29	2	162	24
2098	McKinsey Individual	168	68	0	0	10	0
2099	Jory Individual	250	50	0	0	158	11
2100	Dry Piney Individual	594	30	22	0	1,142	0
2101	Webb Draw Pasture	2,023	556	0	0	828	209
2102	James Ryegrass	3,551	728	0	100	520	0

APPENDIX C-1

APPENDIX C-1 (Continued)
ACRES AND AUMs BY LAND STATUS BY ALLOTMENT

Allotment		BLM		State		Private	
Number	Name	Acres	AUMs	Acres	AUMs	Acres	AUMs
2103	Reservoir Past	416	81	0	0	23	0
2104	Long Pasture	783	352	2	0	794	414
2105	Todd Pasture	44	11	0	0	0	0
2106	Webb Home Pasture	264	5	0	0	1,720	5
2107	J&K Daniel Ridge	504	47	0	14	99	0
2108	Horse Creek Isolated Tract	140	35	0	0	10	0
2109	Individual Fenced	105	11	0	0	925	0
2110	Sandy Upper Muddy Individual	742	47	857	0	657	0
2111	Sandy Individual	128	14	0	0	49	0
2112	Muddy Meadows	45	20	0	0	127	0
2113	New Fork Individual	2,239	302	0	0	543	59
2114	Scattered Tracts	384	41	626	0	1,017	0
2115	North Pasture Individual	498	31	0	0	151	10
2116	Southwest Pasture Individual	435	59	0	0	809	30
2117	Boulter Pasture	25	7	0	0	264	0
2118	Jewett Ryegrass Individual	4,021	440	0	0	70	0
2119	Soaphole Common	7,557	1,352	16	0	658	497
2120	Piney Unit Fenced	141	19	0	0	2,114	0
2121	West Fremont Ridge Common	1,579	293	8	0	163	0
2122	Boulder Stock Driveway	446	96	0	0	16	0
2123	NW Square Top Individual	6,972	980	100	14	35	5
2124	Luman Individual	2,827	600	0	0	0	0
2125	Bondurant Individual	79	10	0	0	0	0
2126	Hay Gulch	814	75	0	0	0	0
2127	McNinch Deer Hill Individual	2,969	252	0	0	0	0
2128	Section 18 Individual	290	26	0	0	200	174
2129	West of Ranch Individual	1,183	130	0	0	560	130
2130	Star Corral Individual	480	62	0	0	214	51
2131	South Ridge Soaphole Common	1,044	97	0	0	259	57
2132	Marincic Mesa Individual	5,474	350	0	0	51	5
2133	Ball Horse Creek Individual	297	87	0	0	0	0
2134	Cranor Building Pasture	29	11	0	0	0	0
2135	Ball Individual	697	107	0	0	2,020	561
2136	East of DLE Individual	2,669	271	0	0	70	6
2137	Lower Red Canyon Individual	641	101	0	0	600	82
2138	Rathburn Individual	801	236	0	0	550	668
2139	Piney Individual	992	178	0	0	440	148
2140	Gilchrist DLE Individual	332	42	0	0	0	0
2141	Beaver Creek Individual	941	129	0	0	0	0
2142	Beaver Creek Meadow Individual	837	20	0	0	0	0
2143	Grindstone Soaphole	4,749	781	440	73	0	0
2144	Lower Horse Creek Individual	1,815	255	0	0	0	0
2145	Upper Horse Creek Individual	705	109	0	0	635	70
2146	Home Individual	1,466	138	0	0	100	8
2147	Daniel "Y" Individual	1,047	107	0	0	474	47
2148	Daniel Ridge Individual	464	50	0	0	0	0
2149	Piney Individual	351	42	0	0	0	0
2150	Deer Hills Common	7,013	731	640	68	140	15
2151	Hoback Rim Individual	2,096	695	0	0	8,772	2,924
2152	Beaver Horse Creek Individual	2,014	584	0	0	635	216
2153	Scab Creek Individual	9,342	607	355	24	3,945	258

APPENDIX C-1

APPENDIX C-1 (Continued)

ACRES AND AUMs BY LAND STATUS BY ALLOTMENT

Allotment		BLM		State		Private	
Number	Name	Acres	AUMs	Acres	AUMs	Acres	AUMs
2154	Silver Creek Individual	69	65	0	0	757	380
2155	Piney Bridge Individual	1,407	131	640	55	160	14
2156	Hot Spring Individual	19	6	0	0	0	0
2157	Hot Spring Pasture Individual	35	26	0	0	0	0
2158	Canyon Ditch Individual	574	125	640	64	0	0
2159	Noble Tracts Individual[1]	343	44	640	100	0	0
2160	Noble Cora Peak Common	1,863	300	0	0	562	90
2161	Norris North Piney Individual	355	144	0	0	2,000	495
2162	5 Acre Pasture Individual	5	12	0	0	0	0
2163	O'Neil Individual	711	80	0	0	87	10
2164	West Cora Peak Individual	1,865	273	0	0	667	251
2165	Rosene Individual	141	42	0	0	1,200	120
2166	Pine Creek Individual	165	20	0	0	328	46
2167	Green River Unit Individual	104	40	0	0	105	23
2168	Chalk Butte Common	3,248	244	200	15	127	9
2169	North Hoback Rim Individual	1,893	113	0	0	0	0
2171	Brodie Draw Individual	2,493	435	0	0	2,603	379
2172	Price Horse Creek Individual	401	40	0	0	80	35
2173	Blue Rim Individual	37,442	3,258	2,240	199	2,120	188
2174	Q5 Soaphole	3,023	755	0	0	338	30
2175	North Beaver Tracts Individual	678	190	0	0	0	0
2176	Q5 Antelope Flat Individual	525	122	0	0	0	0
2177	Hay Draw Individual	189	77	0	0	0	0
2178	Miller Home Place Individual	90	24	0	0	0	0
2179	Spence Place Individual	96	8	0	0	0	0
2180	Irish Canyon Tract Individual	294	30	0	0	0	0
2181	Fremont Butte Individual	4,433	417	640	60	0	0
2182	South Horse Creek Individual	76	10	0	0	0	0
2183	Soda Lake Common	974	156	0	0	0	0
2184	Sandy Fenced Individual	474	30	0	0	1,200	2,916
2185	Chain Lakes Individual	831	265	0	0	9	1
2186	Muddy Corral Individual	947	170	160	29	490	89
2187	189 Muddy Meadow Individual	81	36	0	0	0	0
2188	Fall Creek	194	70	0	0	840	96
2189	Horse Creek Bluff Individual	103	12	0	0	0	0
2190	Steel Individual	1,256	182	0	0	9	2
2191	Butte Individual	119	0	619	0	0	0
2192	Big Sandy Individual	278	30	0	0	514	0
2193	Merna Horse Creek Individual	204	65	0	0	491	124
2194	LaBarge Unit Individual	814	140	617	124	618	10
2195	South Piney Individual	1,081	82	0	0	661	0
2196	Johnson Ridge Individual	1,857	165	0	0	90	0
2197	Springman Creek Individual	1,226	150	0	0	0	5
2198	Beaver Tract Individual	27	48	0	0	14	0
2199	Horse Creek Road Individual	26	43	0	0	12	0
2200	Cora Y Common	1,715	120	29	0	140	5
2201	Upper North Labarge Individual	17,686	1,985	739	96	110	28
2202	Viola Individual	802	81	0	0	1,579	145
2203	Ditch Individual	207	19	0	0	0	0
2204	Yose Individual	2,106	150	0	0	253	0
2205	Round Valley-Ryegrass Individual	9,732	1,616	208	31	641	0

APPENDIX C-1 (Continued)
ACRES AND AUMs BY LAND STATUS BY ALLOTMENT

Allotment		BLM		State		Private	
Number	Name	Acres	AUMs	Acres	AUMs	Acres	AUMs
2206	Bird Individual	297	14	9	27	291	11
2217	Cottonwood Gap Individual	31	155	0	0	15	0
2220	Cora Road Individual	208	82	0	0	16	5
2221	Cora Stock Driveway	2,251	754	20	0	119	23
2222	Price-Beecher Creek	190	50	0	0	942	145
2225	New Fork Tract Isolated[1]	5	8	0	0	897	0
TOTAL		**909,593**	**107,907**	**49,877**	**6,952**	**127,739**	**24,129**

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[1] New Fork Tract Isolated and Noble Tracts Individual originally one allotment. Split into two allotments in l984.

APPENDIX C-2

ALLOTMENT CATEGORIZATION

SELECTIVE MANAGEMENT CRITERIA BY CATEGORY

Individual allotments were categorized based on interviews with permittees, field evaluation by BLM personnel, and identified resource use conflicts. The following criteria were considered during the allotment categorization.

These criteria were used as general guidelines, and as such, may not be totally representative of an entire individual allotment. The categorization is a dynamic process and if conflicts are identified in M category allotments, they may receive management attention through other resource activity planning (such as wildlife habitat management), or if needed, the category may be changed to I. Funding may be provided for M or C allotment improvements as priorities allow.

Maintenance Category (M)

Present range condition is satisfactory.

Allotments have moderate or high resource production potential and are producing near their potential (or trend is moving in that direction).

Present management is considered satisfactory.

Riparian areas are under satisfactory management and are not in a declining trend.

No serious conflicts exist with regard to current uses of resource.

Potential may exist for positive economic returns on public investments.

Improve Category (I)

Present range condition is unsatisfactory or in a declining trend.

Allotments have moderate to high resource production potential but are producing at low to moderate levels.

Present management is considered unsatisfactory.

Riparian areas are presently in a declining trend and management is unsatisfactory.

Serious resource use conflicts may exist and controversy is at a high level.

Potential for high return on public investment exists.

Custodial Category (C)

Present range condition is variable.

Allotments have relatively low resource production potential and are presently producing at or near their potential.

Present management appears satisfactory or is the only logical practice under existing resource conditions.

Riparian areas are either not present, or are not in a declining condition.

Limited resource conflicts and(or) controversy presently exist.

Potential for returns on public investment is low.

SELECTIVE MANAGEMENT CRITERIA BY SITUATION

Range Condition

A professional judgment criteria used when there is a lack of ecological range site data. A subjective rating of what the area is now producing as compared to its potential.

Resource Potential

A professional judgment criteria used to determine the allotment's potential (capability) to improve. This criteria is based on the potential that exists for increased forage production, either naturally or artificially.

High Potential - I
Moderate Potential - M
Low Potential - C or M

Present Management Situation

A rating of allotments based on present range management practices.

Allotment is receiving satisfactory management - M or C
Allotment is receiving unsatisfactory management - I

Riparian Areas

A judgment of whether or not riparian vegetation is declining, static, or in an upward trend.

Declining trend - I
Static or upward trend - M or C

Resource Use Conflicts and(or) Controversy

Critical wildlife habitat areas, Wilderness Study Areas, ACECs, mining or oil and gas, and other conflicts that may exist.

Low level of conflict/controversy - M or C
High level of conflict/controversy - I

Economic Investment Potential

The potential for a positive economic return on investments.

High - I
May exist - M
Low - C

Ranking of Allotments in the Improve Category

The allotments in the improve category were ranked in priority order based upon professional judgment and problems and(or) conflicts. The current priority list is described in Appendix C-3.

APPENDIX C-3

ALLOTMENT DEVELOPMENT

Allotment Number	Allotment Name	Develop and Implement AMP	Change in Livestock Forage AUMs[1]	Acreage of Vegetation Manipulation
"High Priority" I Allotments[2]				
2005	South LaBarge Common	Yes	1,221 (59)	11,871
2201	Upper North LaBarge	No	536 (25)	4,237
2077	North LaBarge Common	No	999 (790)	8,342
2035	Deer Hills Individual	No	112 (7)	944
2150	Deer Hills Common	Yes	38 (25)	355
2062	Bench Corral Individual	Yes	734	5,700
2028	Upper Bench Corral	Yes	393	2,792
2084	Lower Bench Corral	Yes	510	4,359
2051	Square Top Common	Yes	876	7,545
2173	Blue Rim Individual	Yes	420	4,723
2119	Soap Hole Common	Yes	84 (82)	508
I Allotments[2]				
2140	Gilchrest DLE	No	0	0
2134	Cranor Building	No	0	0
2127	McNinch Deer Hills	Yes	4 (3)	45
2129	West of Ranch	Yes	0 (7)	0
2073	Reardon Canyon	Yes	8 (15)	145
2171	Brodie Draw	Yes	63	490
2076	Flying W Fish Creek	Yes	33	261
2144	Horse Creek Lower	Yes	42	360
2007	Fayette Individual	Yes	5	29
2027	Mickelson-Bray	Yes	46	327
2115	North Pasture	Yes	6	99
2136	East of DLE	Yes	3	30
2174	Q5 Soap Hole	Yes	139	531
2053	Clark-Bloom	Yes	34	315
2200	Cora Y Common	Yes	45	333
2132	Marincic Mesa	Yes	1	27
2157	Hot Springs Pasture Individual	No	0	6
2156	Hot Springs Individual	No	0	4
2032	Dan Budd Deer Hills	No	43 (10)	447
2036	Dead Indian Dome	No	77	408
2006	Round Valley Ryegrass	No	328	1,419
2002	40-Rod Common	No	105	694
2071	Horse Creek Pasture No. 2	Yes	44	671
2095	Muddy Creek Individual	Yes	0	0
2194	LaBarge Unit Individual	No	30 (2)	157
2049	Mount Airy	Yes	123	1,586
2196	Johnson Ridge	Yes	75 (3)	355
2102	James Ryegrass	No	141	708
2056	Three Island Individual	Yes	23	219
2223	Lander Cutoff	Yes	0	0
M Allotments				
2034	Adjacent To Ranch	No	12	22
2015	Antelope Flat	No	80	161
2135	Ball Individual	No	5	97
2133	Ball Horse Creek	No	17	59
2141	Beaver Creek Individual	No	22	242
2142	Beaver Creek Meadows	No	0	0
2152	Beaver Horse Creek	No	100	394

APPENDIX C-3

APPENDIX C-3 (Continued)

ALLOTMENT DEVELOPMENT

Allotment Number	Allotment Name	Develop and Implement AMP	Change in Livestock Forage AUMs[1]	Acreage of Vegetation Manipulation
M Allotments (Continued)				
2065	Beecher Individual	No	57	254
2192	Big Sandy Individual	No	6	56
2021	Boulder Creek Tract	No	5	46
2020	Boulder Lake Common	No	126	743
2122	Boulder Stock Driveway	No	18	81
2117	Boulter Pasture	No	0	5
2024	Bousman Individual	No	158	1,008
2033	Budd Fish Creek Individual	No	17	191
2050	Burch Individual	No	1	16
2191	Butte Individual	No	0	0
2038	Buyer Horse Creek	No	68	337
2064	Camp Creek Individual	No	104	464
2158	Canyon Ditch	No	25	110
2185	Chain Lakes	No	42	157
2168	Chalk Butte	No	7	103
2041	Chapel Individual	No	12	294
2047	Circle 9 Individual	No	0	0
2054	Cora Peak Individual	No	29	155
2220	Cora Road Individual	No	12	42
2221	Cora Stock Driveway	No	125	583
2097	Cottonwood Common	No	54	476
2042	Cottonwood Meadow	No	0	17
2052	Cowley Tract	No	0	15
2057	Dack	No	33	133
2000	Daniel Ridge	No	11	22
2147	Daniel Y Individual	No	20	209
2040	Desert Common	No	57	793
2026	Desert Land Entry	No	0	2
2203	Ditch Individual	No	6	41
2100	Dry Piney Individual	No	0	0
2011	East Cora Road Individual	No	0	0
2012	East Cora Road Meadow	No	15	30
2022	East Fork Common	No	110	953
2029	Ed Roe	No	16	78
2061	Eubank South LaBarge	No	0	0
2188	Fall Creek Individual	No	9	33
2046	Fall Creek Pasture	No	1	6
2014	Fish Hatchery Individual	No	11	61
2081	Fox-Yose LaBarge Creek	No	91	941
2009	Fremont Butte Common	No	231	2,021
2181	Fremont Butte Individual	No	58	616
2044	Fremont Lake Individual	No	5	93
2048	Gilligan Individual	No	21	114
2004	Glascow Individual	No	6	18
2167	Green River Unit	No	5	21
2143	Grindstone Soap Hole	No	20	129
2086	Guio Sections	No	123	482
2177	Hay Draw Individual	No	12	34
2126	Hay Gulch	No	37	307
2019	Heifer Pasture	No	15	28
2096	Hittle Individual	No	12	30
2151	Hoback Rim Individual	No	123	389
2146	Home Pasture Individual	No	13	149
2003	Homestead Individual	No	9	31
2189	Horse Creek Bluff Individual	No	0	0
2108	Horse Creek Isolated	No	5	21

APPENDIX C-3

APPENDIX C-3 (Continued)

ALLOTMENT DEVELOPMENT

Allotment Number	Allotment Name	Develop and Implement AMP	Change in Livestock Forage AUMs[1]	Acreage of Vegetation Manipulation
M Allotments (Continued)				
2030	Horse Creek Individual	No	14	79
2088	Horse Creek Ryegrass Individual	No	92	734
2070	Horse Creek Pasture No. 1	No	7	16
2145	Horse Creek Upper	No	15	134
2180	Irish Canyon Tract	No	3	33
2018	Isolated Tract	No	14	91
2107	J&K Daniel Ridge	No	9	101
2118	Jewett Ryegrass	No	86	803
2067	Johnson Huhtah Individual	No	26	182
2099	Jory Individual	No	3	15
2075	LaBarge Creek Ranch Individual	No	0	0
2091	LaBarge Individual	No	58	412
2055	Lauzer Marsh Creek	No	30	131
2104	Long Pasture	No	52	123
2017	Lower Pasture Individual	No	52	347
2137	Lower Red Canyon	No	23	128
2124	Luman Individual	No	60	299
2039	Maki Creek	No	19	91
2098	McKinsey Individual	No	0	0
2193	Merna Horse Creek	No	7	29
2031	Mesa Common	No	295	3,510
2148	Miller Daniel Ridge	No	11	93
2178	Miller Home Place	No	0	0
2149	Miller Piney Individual	No	0	0
2186	Muddy Corral Individual	No	3	19
2187	189 Muddy Meadows	No	0	0
2112	Muddy Meadows	No	3	5
2068	Muleshoe Individual	No	0	0
2113	New Fork Individual	No	0	0
2160	Noble Cora Peak	No	59	371
2159	Noble Tracts	No	10	52
2161	Norris North Piney	No	14	54
2175	North Beaver Tracts	No	34	126
2169	North Hoback Rim	No	8	135
2123	NW Square Top	No	190	1,333
2163	O'Neil Individual	No	4	94
2155	Piney Bridge Individual	No	8	87
2166	Pine Creek	No	4	33
2139	Piney Individual	No	21	137
2222	Price-Beecher	No	10	37
2172	Price-Horse Creek	No	7	80
2176	Q5 Antelope Flat Individual	No	22	88
2138	Rathburn Individual	No	30	94
2025	Red Canyon	No	185	1,108
2090	Rief Allotment	No	14	37
2103	Reservoir Pasture	No	16	82
2205	Round Valley Ryegrass Individual	No	307	1,922
2059	Ryegrass Individual	No	38	387
2083	Sagebrush Basin	No	6	111
2184	Sandy Fenced	No	11	92
2110	Sandy Upper Muddy Meadow	No	4	60
2153	Scab Creek	No	77	1,186
2066	School Section Individual	No	30	348
2128	Section 18 Individual	No	5	50
2183	Soda Lake Common	No	27	190
2182	South Horse Creek	No	1	11

APPENDIX C-3

APPENDIX C-3 (Continued)

ALLOTMENT DEVELOPMENT

Allotment Number	Allotment Name	Develop and Implement AMP	Change in Livestock Forage AUMs[1]	Acreage of Vegetation Manipulation
M Allotments (Continued)				
2131	South Ridge Soap Hole	No	11	123
2116	Southwest Pasture	No	10	87
2195	South Piney Individual	No	12	127
2074	South Piney Ranch	No	16	153
2072	Spade Individual	No	139	483
2197	Springman Creek	No	30	237
2130	Star Corral	No	15	129
2016	State Section	No	17	33
2008	Stud Horse Butte	No	223	1,422
2190	Steele Individual	No	35	250
2105	Todd Pasture	No	1	7
2085	Upper Billies Individual	No	425	1,676
2063	Upper Muddy Individual	No	376	1,083
2087	Upper Post	No	29	69
2202	Viola Allotment	No	0	0
2069	Warren Bridge Individual	No	13	40
2101	Webb Draw Pasture	No	103	400
2164	West Cora Peak	No	52	378
2121	West Fremont Ridge	No	54	304
2037	West Individual	No	123	363
2013	Willow Lake Tract	No	3	14
2204	Yose Individual	No	9	123
C Allotments				
2198	Beaver Tract Individual	No	0	0
2206	Bird Individual	No	0	6
2058	Bloom Tracts	No	0	0
2125	Bondurant Individual	No	0	0
2217	Cottonwood Gap	No	0	2
2082	East Fork River Tract	No	0	4
2162	5-Acre Pasture	No	0	0
2010	Fontenelle Meadows	No	0	0
2080	Fox-LaBarge Individual	No	0	9
2089	Hansen Tract	No	0	2
2094	Hicks Pinedale Individual	No	2	12
2199	Horse Creek Road	No	0	5
2109	Individual Fenced	No	0	13
2078	Johnson Place Meadow	No	0	0
2225	New Fork Tract Isolated	No	0	0
2045	Pasture Pole Creek	No	0	3
2120	Piney Unit Fenced	No	3	23
2043	Pole Creek Individual	No	0	0
2165	Rosene Individual	No	7	19
2060	Ryegrass Isolated Tract	No	0	11
2111	Sandy Individual	No	2	25
2114	Scattered Tracts	No	6	33
2154	Silver Creek	No	4	8
2079	South Piney Place Meadow	No	0	0
2179	Spence Place Individual	No	0	19
2106	Webb Home Pasture	No	2	51

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[1] The AUMs produced from vegetation manipulations may be used to replace AUMs lost to oil and gas activities, realty actions, etc. The numbers in parentheses are AUMs lost. All the AUMs produced may not be allocated to livestock grazing.

[2] "I" Category allotments are listed by order of priority.

APPENDIX C-4

STANDARD OPERATING PROCEDURES FOR RANGE IMPROVEMENTS AND VEGETATION MANIPULATIONS

These operating procedures provide standard guidance for all range improvements and vegetation manipulations.

Consultation with the affected interest groups and an approved environmental analysis would be required for all range improvements before any project is constructed.

Roads or trails to new construction or project sites would be constructed only if access does not exist.

Proposed range improvements, resulting in surface disturbance, would be inventoried for archeological features. All archeological sites identified would be avoided or mitigated.

If undiscovered cultural remains are encountered during construction, the operator would temporarily discontinue activities until BLM evaluates the discovery and determines the appropriate action.

Proposed range improvements resulting in surface disturbance would be subject to the guidelines established in Appendix A-1.

No action would be taken by BLM that could jeopardize the continued existence of any federally listed threatened or endangered plant or animal species.

BLM would also comply with any state laws applying to animal or plant species identified by the state as being threatened or endangered (in addition to the federally listed species).

Wildlife escape devices would be installed and maintained in all water troughs.

An analysis of cost effectiveness would be completed on an allotment basis prior to the installation of any management facilities or land treatments funded by the BLM.

All areas where vegetation manipulation occurs would be totally rested from livestock grazing for a period necessary to allow for the recovery and reestablishment of key forage species.

Chemical treatment would consist of applying approved chemicals to control noxious or poisonous plants. Before chemicals are applied, the BLM would comply with Department of Interior regulations. All chemical applications would be preceded by an approved pesticide use proposal and an environmental assessment. All applications would be carried out in compliance with the pesticide laws for Wyoming.

All land treatment projects on crucial wildlife ranges will be limited in size, where necessary, by the cover and(or) forage requirements of wildlife. Proper mitigation measures would be incorporated.

All burning projects will have a burn plan, environmental assessment, and a burn permit from the State of Wyoming's Department of Environmental Quality prior to initiation.

APPENDIX C-5

DESIGN OF RANGE IMPROVEMENTS

All range improvements will be designed and constructed in such a manner so as to minimize environmental impacts while maximizing function and cost effectiveness. Prior to the installation of any range improvements, an environmental assessment (EA) will be prepared analyzing the alternatives for the project. In addition, a benefit/cost analysis (B/C) will be completed, if government funding is involved, to determine the cost effectiveness of the project.

BRUSH CONTROL

Brush control refers to the removal of a shrub or tree overstory to release the grass and forb understory from the effects of competition for soil nutrients and water. The techniques involved in brush control generally fall into one of three categories: burning, chemical, or mechanical.

Burning involves the use of fire under prescribed conditions to change the character of the vegetative community. This technique takes advantage of the relative fire tolerance between plant species. Prescribed burning is most useful in removing a dominant fire sensitive overstory species, such as big sagebrush, thereby opening up the community to the natural response of fire tolerant grasses, forbs and shrubs. Prescribed fire can also be useful in preparing a seedbed for artificial reseeding. The main disadvantage to prescribed burning is its harsh initial impact on the site. Initially, ground cover is greatly reduced, erosion potential is increased, wildlife habitat is reduced and forage production is decreased. Reestablishment of vegetation on the site can be quite slow but usually results in increased productivity, palatability and species diversity while erosion potential is decreased over pretreatment levels. The cost of prescribed burning is low compared to other techniques.

Chemical treatments involve the use of ground or aerially applied herbicides to target species to reduce their competitive effect on more desirable species. Many classes of herbicides exist and they all vary in action, selectivity, and persistence. However, relatively few compounds are approved for use in brush removal on public lands. These compounds are usually selective for broadleaf vegetation and leave only grasses and tolerant forb and shrub species after treatment. If, for instance, the target species is sagebrush, few species other than grasses will exist immediately following application. However, by the next growing season the seed source for other species will begin to express itself as a result of reduced overstory competition. Generally by the end of the first complete growing season, increased understory productivity and species diversity are evident. Chemical treatments have less total impact on the site than burning or mechanical treatments but are usually more expensive than burning. In addition, the seedbed resulting from a chemical treatment is usually not as suitable for reseeding due to the amount of standing litter.

Mechanical treatments involve the use of agricultural equipment to simply remove the overstory or to consume the entire community and leave a suitable seedbed. Techniques and implements are highly variable but all share the disadvantage of high cost.

All of the above brush control techniques can be used to prepare a seedbed suitable for artificial reseeding. Where needed, reseeding is a viable technique to establish a more desirable plant community. However, seed and application costs can be high and are sometimes difficult to prove cost effective. Wherever possible, techniques used and sites chosen on the Pinedale Resource Area will be those that lend themselves to natural regeneration.

Vegetation manipulation (controlled burning, mechanical treatment, artificial seeding, etc.) will generally be designed in irregular patterns creating more "edges," with islands of vegetation left intact for cover, with the exception of drainages where active channel incision is occurring or in areas where saline or sodic soils are present. Manipulation proposals are handled on a case-by-case basis, followed with animal control to ensure reestablishment of vegetation.

RESERVOIRS

Reservoirs are constructed by heavy earthmoving equipment that is used to build dikes across drainages. The impoundments created are designed to catch temporary runoff or permanent streamflow to provide a more reliable source of water for livestock and wildlife. Design requirements are determined mainly by the nature and amount of source water. Upstream fencing is sometimes desirable to provide riparian habitat and reduce the silt load entering the reservoir.

Water will be provided for wildlife in appropriate habitat areas (spring/summer/fall habitat areas). Whenever possible, water will be provided in allotments (including rested pastures) during seasonal periods of need for wildlife.

WELLS

Wells are usually drilled in areas where other water sources are unavailable to provide a reliable water source for livestock and wildlife. Drinking troughs will be installed near the well and will be modified to serve young and mature animals as well as small game and birds. Well sites will be selected based on geologic well site investigations.

SPRINGS

Spring sources are usually developed with a backhoe or other implement designed to expose the aquifer. Source points are gathered into a central point or head box through a perforated pipe and diverted into a pipeline or drinking trough. The spring source will be fenced for protection and to provide riparian habitat. A wildlife drinking trough may be located within the enclosure. The livestock trough will be located outside the enclosure and will also be modified for use by wildlife.

PIPELINES

Pipelines consist of plastic, usually polyethylene, pipe buried by mechanical pipe laying implements to a depth necessary to maximize the life and efficiency of the pipe material. Pipelines originate at spring sources or wells and are used to distribute water to unserviced areas. Drinking troughs are situated along the pipeline, usually no more than one mile apart, to distribute use throughout the area.

FENCES

Fences are constructed to provide management boundaries such as to provide pastures or outside boundaries for a grazing allotment. Because of the potential for impact to wildlife movement, fence design is highly variable. Wire would be smooth, barbed, mesh, or combined, dependent on the wildlife species involved. Steel line posts will be spaced a minimum of 16.5 feet apart. Wooden braces will usually be spaced one-quarter mile apart. Fences may be modified in heavy snow or animal migration areas by using wood poles.

CATTLEGUARDS

Cattleguards will be installed where fences cross heavily traveled roads or in situations where opened gates would severely compromise management. Cattleguard grids vary in weight and size requirements, but usually require a backhoe to install.

APPENDIX C-6

RANGELAND MONITORING PLAN FOR THE PINEDALE RESOURCE AREA

INTRODUCTION

The rangeland monitoring program is a multidisciplinary approach designed to measure progress towards the realization of the goals and objectives resulting from the land use planning process. This monitoring plan was prepared to provide for the implementation of the rangeland monitoring program in the Pinedale Resource Area. This plan will discuss when, where, and how studies will be implemented, as well as the types of data being collected, how the data will be evaluated, and who will participate in the process.

ALLOTMENT CATEGORIZATION

The selective management process was developed to assist the Bureau in setting priorities for its management efforts. Through selective management, each allotment is placed in one of three categories (I, M, or C), depending on the applicable categorization criteria. Once categorized, the allotments are ranked in order of priority for a given level of management. Allotments for the resource area are listed by category in Appendix C-3. Monitoring studies would be installed on all "I" allotments and on "M" and "C" category allotments as needed. Monitoring intensity would be greater on "I" allotments than on "M" or "C" allotments.

Priorities for monitoring intensity will be assigned to I category allotments on the basis of resource conflicts and condition. Some I allotments should be monitored intensively; others may require less intensive monitoring and may be moved to the M category after implementing range improvement projects. The M and C allotments will be monitored at a lower intensity, with C allotments being monitored only if it will not reduce the amount of effort necessary for the I and M allotments.

Each allotment will be monitored for resource conditions, and effectiveness of management practices and facilities. This will include evaluation and analysis of monitoring data, and range inspection tours by BLM personnel and affected users to jointly evaluate on-the-ground conditions. Any necessary adjustments in stocking levels or other management practices including changes or additions to existing management facilities would be based on allotment monitoring and user consultation.

OBJECTIVES

For "I" Allotments (high intensity)

1. Identify grazing distribution problems and use patterns on each allotment prior to installation of trend studies.
2. Stratify each allotment to the level necessary to identify key management areas prior to installation of trend studies. Riparian areas and wet meadows will be considered in this process.
3. Identify areas of significant competition for forage and resolve these conflicts by adjusting stocking rates or seasons of use of competing species.
4. Identify key management species for each key area.
5. Determine range condition initially and trend starting five years from installation of trend studies on each allotment.
6. Provide management and monitoring intensity appropriate to improve range condition.
7. Determine current utilization levels in each allotment.
8. Determine actual use by livestock on each allotment.
9. Identify annual climatic patterns, which include precipitation. Soil temperature, soil moisture, and air temperature information will be obtained in selected key areas.

For "M" and "C" Allotments (low intensity; selected elements from the following list will be used)

1. Identify grazing distribution problems and use patterns, where necessary.
2. Identify areas of significant competition for forage and monitor only crucial habitats.
3. Stratify each allotment to a level necessary to identify key management areas. Riparian areas and wet meadows will be considered in this process.
4. Identify key management species for each key area.
5. Establish low intensity trend studies on only the most representative areas. Determine range site and range condition following development.
6. Provide appropriate management and monitoring intensity in order to maintain current range condition.
7. Determine current utilization levels in each allotment.
8. Determine actual use by livestock.
9. Identify general climatic patterns.

MONITORING STUDIES METHODOLOGY

Climate

Climatic data, along with actual use data, are used as a tool to help understand annual utilization and long-term trend patterns. There are 13 existing precipitation gauges (including a cooperative study with the University of Wyoming) on the Pinedale Resource Area. In addition, precipitation data from the National Climate Data Center and University of Wyoming Water Research Institute may be utilized.

Temperature data will also be used to assist in interpreting climatic effects on monitoring data. Temperature data will be obtained from National Climatic Data Center reports from sites at Big Piney, Cora, Merna, and Pinedale, Wyoming.

In addition to the prescription and temperature studies described above, soil moisture/temperature probes will be installed on selected key areas in "I" allotments where conflicts are sufficient to warrant this level of data.

Actual Use

Actual use is the grazing use made on an area by all classes of forage consumers. This information is necessary to provide a correlation between utilization and trend data. Considered alone, actual use data is essentially meaningless. When considered in conjunction with climate and utilization, adjustments in grazing capacity can be made.

Actual use data for livestock will be obtained from permittees/lessees by Certified Actual Use Reports at the end of specified grazing periods. In addition, unannounced field counts will be made each year on "I" allotments as time and money allow. Paint branding and ear tagging will also be used on "I" allotments where the potential for unauthorized use is greatest.

Utilization

Utilization is defined as the percent of the current year's growth consumed by animals during a given grazing period. These data are used in conjunction with actual use, climate, and possibly trend data to make stocking adjustments. This is done by comparing measured utilization rates with proper or allowable rates for a particular key species. Utilization techniques will also be used to assist in use pattern mapping. Several methods for obtaining utilization data (available for review in the resource area office) will be employed, including:

Key Forage Plant Method for use pattern mapping.

Ocular Estimate by Plot Method for key areas.

Height-Weight Curves for key areas on selected "I" allotments.

Paired Plot Method for riparian areas.

Cole Browse Transect for wildlife or wildlife/livestock areas.

These data will be collected following the removal of livestock from a pasture or at the end of a grazing period for livestock or wildlife. The intensity with which these techniques will be applied will be highest in the "I" allotments. The "M" and "C" allotments will be monitored only to a level sufficient to identify changes in current range condition.

Trend

Trend is defined as the change in range condition over time. Trend data will indicate the direction of change in the general health of the range resource. These data will be used in conjunction with other monitoring data to assist in making adjustments in grazing use.

The primary tool used to evaluate trend in M, I, or C allotments will be permanently marked photo points.

Trend studies on "I" allotments may be of high intensity. These studies will include the installation of permanent plot transects. Existing 3-foot by 3-foot trend plots will be replaced with this method where they fall into the key area being monitored. However, these existing plots will continue to be photographed on the same sequence that the trend plot transects are being read.

Trend studies on "M" and "C" allotments will be of low intensity. Trend plots will be installed only on selected key areas to monitor for specific resource issues. To assist in this effort, an ocular estimate of species composition by weight will be used to establish a baseline for range condition in areas lacking soil survey data. This method will also be used as a check for future changes in range condition on these sites.

Trend studies will normally be read on a three to five year sequence, depending on the level of data required for each key area.

Key Area and Key Species Selection

Key areas will be selected first on "I" allotments in approximately the same order as listed in Appendix C-3. Selection of key areas on "M" and "C" allotments may be integrated with the process for "I" allotments but no actions will occur on them at the expense of time that should be spent on higher priority allotments.

Some of the criteria to be considered in the selection of key areas include: range sites, vegetation types, use patterns, range improvements, kind and class of animal, wildlife crucial areas, and the physical feature of the allotment.

During the monitoring process, key species will be identified for each allotment. Selection of the key species will be tied directly to the management objectives for the allotment. Key species are generally an important component of a plant community and serve as an indicator of change. A key species may or may not be a forage plant. Problem species such as poisonous plants or species valuable for reducing erosion, which are not the most valuable forage species in the area, could be selected as key species. More than one key species may be selected for an allotment or key area within an allotment depending on management objectives and data needs.

Schedules and Personnel Requirements for Establishment and Reading of Studies

This monitoring plan was prepared with the assumption that funding will remain at, or near, existing levels for the foreseeable future. In this light, it is anticipated that the bulk of the monitoring load will have to be borne by the existing range staff.

The scheduling for implementation of this monitoring plan is dependent, in part, on the continued funding of the range site inventory. The range site inventory is completed on approximately half the resource area and the remainder of the area does not have a soils inventory nor a range site inventory. The initial thrust of the monitoring program will be towards completion of the high "I" allotments. Low priority "I" as well as the "M" and "C" allotments will be addressed as completely as funding levels allow.

COORDINATION AND CONSULTATION

The rangeland monitoring program for the resource area is a multiple use effort whereby all affected interests will be given an opportunity to participate. Prior to implementation of this plan, any affected groups or individuals will be notified by mail of our intent and be furnished with a schedule covering the first group of allotments. Follow-up consultations will be made to those groups or individuals who expressed an interest in a given allotment to advise them of the time and place to meet for an initial field examination. This process will carry through all aspects of the monitoring program for each allotment.

EVALUATION/ADJUSTMENT

Allotments will be evaluated on a predetermined schedule such as the end of a grazing cycle on allotments with AMPs or following one reading of all the trend studies on an allotment without

AMPs. This process will be coordinated with all affected interests.

The results of these allotment evaluations will be used as a basis for making short or long term adjustments in grazing use. Short-term operational adjustments may be made immediately if the problem can be resolved through livestock management (e.g., herding, salting). Adjustments in stocking rates, seasons of use, or changes in kind of livestock will normally require two years of utilization, actual use, and climatic data. Trend data may also be used, if available, to make adjustments in stocking rates, seasons of use, etc.

If the monitoring data indicate that certain allotment objectives are not being met, the appropriate adjustments in the grazing operation will be made. These adjustments may range from the manipulation of livestock to changing stocking numbers or seasons of use. The level of adjustment will be determined by the degree of divergence from the objective.

ALLOTMENT MONITORING PLANS

Allotment monitoring plans will be prepared for all "High Priority I" allotments prior to initiation of the monitoring program. On allotments with AMPs, this will be included as a portion of the AMP. On allotments without AMPs, this plan will be included in the allotment file. The allotment monitoring plan will include, as a minimum, the following sections: public involvement and interdisciplinary approach; allotment issues; allotment objectives; intensity and type of studies; and the schedule for conducting, analyzing, and evaluating monitoring data.

Public Involvement and Interdisciplinary Approach

This section will document Bureau efforts to solicit public involvement.

Allotment Issues

This section will identify specific issues to be resolved by the management program prescribed for the allotment. The monitoring plan will provide the vehicle for measuring progress towards resolution of the issues. A discussion of the selective management category and accompanying justification will also be included.

Allotment Objectives

This section will contain a clear, concise list of allotment objectives to be monitored by the studies program.

Intensity and Type of Studies

This section will discuss the nature of the studies required to measure progress towards the allotment objectives identified above. A discussion of any special physical or management features for the allotment will also be included.

Schedule for Conducting, Analyzing, and Evaluating Monitoring Data

This section will show the schedule for collecting data for each monitoring technique. It will also provide a schedule for periodic analysis of data to determine if objectives are being met.

A modified version of this format may be used to document the monitoring effort on "lower priority I," "M," and "C" allotments. This plan will be retained in the studies section of the allotment file.

APPENDIX D

FOREST MANAGEMENT GUIDANCE

INTRODUCTION

This appendix provides general guidance in support of the forest management RMP decisions. This guidance is intended to be flexible and changeable as conditions change. The guidance offered here is not intended to be utilized as land use plan decisions; however, it does assume implementation funding would be available and that access be acquired to various forested tracts. Should funding not be available or needed access not be acquired, a commensurate reduction in the harvest, thinning, and reforestation level would be required.

Forested lands in categories 1 and 2 areas will be managed to produce an estimated 18.2 million board feet of timber over the next 20 years. The 18.2 mmbf harvest estimate is based upon the area average of 6,478 board feet per acre; however, actual harvest volumes may vary depending on the individual stand or stands being harvested (USDI 1985a). The harvest acreage is based on two situations. Where high wildlife values occur, additional harvesting will be allowed as logged or burned areas presently out of cover regain their cover status. Where wildlife values are not an overriding concern, harvesting will be based on the allowable harvest/sustained yield levels. Accordingly, the resource area was divided into four forest management units: Deadline-Pinegrove, North Piney, Miller Mountain, and Eastside-Hoback. The Deadline-Pinegrove, North Piney, and Miller Mountain units have high wildlife concerns, consequently, they will be managed to provide specific cover levels, i.e., 92 percent (of the total conifer acreage) in Deadline-Pinegrove unit, 85 percent in North Piney, and 90 percent in Miller Mountain. Timber harvesting in these units will be designed to meet the cover objective on a year-to-year basis; however, fluctuations will be allowed to permit the disposal of forest products in logical and economic units and to maintain a sustained harvest level.

The Eastside-Hoback unit does not have the cumulative wildlife concerns which occur within the other units; therefore, it does not have a specific cover level objective and will be managed to provide forest products based on sustained yield. Wildlife and other resource mitigation will be accomplished through sale layout criteria, including road closures and harvest design.

The 2,810-acre proposed harvest level will include all new logging as well as tree removal on previously logged partial cut areas where there is sufficient tree density to provide hiding or thermal cover, i.e., the proposed harvest level includes all harvesting that would result in a reduction of elk cover. Harvesting on previously logged (partial cut) areas where there are too few residual trees to provide hiding or thermal cover will not constitute a reduction of cover and therefore would be in addition to the proposed harvest acreage. Specifically, the additional harvest acreage will include approximately 450 acres (230 acres on Miller Mountain and 220 acres on Deadline Ridge). Harvest will be implemented to remove residual trees where sufficient reforestation has occurred. Removal of seed trees will be accomplished in a manner that will help promote further growth of younger trees. Where young trees have grown to elk hiding cover status, the partial cuts will be designed to maintain the cover provided by the regrowth. Where young trees are too small to provide elk hiding cover, care will be taken to minimize damage to regrowth from overstory removal.

Generally, clearcut harvest units will adhere to the BLM Wyoming State Office guidance of 25 acres per individual unit. However, to allow flexibility to manage special situations (such as controlling insect or disease infestations, salvaging timber damaged by wildfire or weather, or meeting other resource needs) the clearcut size may be extended to 40 acres per unit. Clearcuts exceeding 25 acres must be supported in a site specific environmental analysis.

Timber access roads will be constructed to the minimum standard necessary to safely remove timber and will be consistent with surface disturbance mitigation guidelines. However, where such roads will be needed for other public purposes, a higher road standard will be applied. Generally, all new timber sale roads will be closed once logging and associated activities are completed. Existing roads will also be evaluated, and roads not necessary for management activities will be closed. Actual methods of road closures will be determined through site-specific analysis.

Guidelines for the Deadline-Pinegrove Unit

The available harvest acreage (953 acres) includes those acres under timber sale contract but not logged as of October 1985. Timber harvesting, up to the 953-acre availability level, will be allowed as existing logged or burned areas resume providing acceptable elk hiding cover or are at least restocked to the preharvest tree density with 12- to 15-foot tall trees. Should this not be achieved, the 20-year harvest level will be commensurately reduced to maintain the October 1985 cover level. Further reductions may be necessary due to uncontrolled events such as wildfire or harvesting for other development activities. All cover losses in Categories 1 and 2 lands, whether to timber harvesting or other activities, will be considered part of the allowable harvest acreage.

Increases in the timber harvest level and a commensurate decrease in wildlife cover will be allowed in the event that other conflicting uses subside and providing that such decreases in the cover level will not reduce the elk population below the 1987 target level in the Wyoming Game and Fish Department planning objectives.

Guidelines for the North Piney Unit

This harvest acreage also assumes that all conifer acres currently not producing elk cover will regain cover status within the 20-year period; that all losses of all conifer cover, regardless of the source, in Categories 1 and 2 will be considered part of the allowable harvest level; and that all acres under timber sale contract but not logged will count toward the 20-year harvest level.

Guidelines for the Miller Mountain Unit

The assumptions made for the Deadline-Pinegrove and the North Piney units will also apply to the harvest level for this unit. Forest management activities will be excluded from the Fort Hill elk winter range. Exceptions will be allowed for emergency salvage when the wildlife will benefit.

Monitoring Requirements

Existing and future harvest areas will be monitored to insure reforestation and elk cover requirements are achieved. Monitoring for reforestation will be conducted at one, three, and five years after harvest. Reforestation monitoring will utilized standard BLM regeneration survey procedures. Monitoring for elk cover will be conducted the 15th and 18th year after harvest. Elk cover monitoring will use the Smith and Long method ("Elk Hiding and Thermal Cover Guidelines in the Context of Lodgepole Pine Stand Density") and the Bridger-Teton elk 20 model.

APPENDIX E

CULTURAL RESOURCES PROCESS

Figure 3 depicts the narrative of the cultural resources process.

1. The BLM may require a cultural survey of a proposed project area. The survey is conducted by either BLM personnel or an outside contractor. A survey report is produced and copies provided to BLM and the State Historic Preservation Officer (SHPO). The BLM uses the report as a basis for Natural Register evaluations of sites located, determining the effect of the project on any significant resources, and the need to mitigate any impacts to significant resources.

2. The BLM specialist or cultural resource contractor plans the survey project, conducts background research on the project area, reviews regional overviews and other documents for pertinent previous research and terrain and field conditions in the project area. Before beginning fieldwork, the contractor conducts a site file search at the SHPO records office, and if necessary, at the local BLM office.

2A. If the file search reveals that the project area has been adequately surveyed, or if the project area is one of demonstrably low site potential, a resurvey may not be warranted. The responsibility for determining the need for a survey rests with the BLM in consultation with the SHPO.

2B. The results of the file search are documented in a report that should contain a complete bibliographic reference of the previous surveys and summary of previous sites located.

3. The BLM or contractor conducts the field survey of the project area. If standard inventory requirements would not apply, the overall field methodology, including survey intensity and aerial limits, would be determined by the BLM in consultation with the SHPO.

3A. If no sites are discovered during the survey, and if no previously recorded sites are located in the survey area, the negative results of the survey are documented in a Class III report. Cultural resource clearance is obtained and the project proceeds, subject to other resource considerations, as applicable.

3B. If sites are discovered during the survey, or if previously recorded sites are located in the survey area, Steps 4 through 9 are followed.

4. Each site located is recorded on an InterMountain Antiquities Computer System (IMACS) site form.

5. Each new site and each previously recorded site is evaluated for National Register eligibility. Limited testing should be conducted as necessary.

6 & 6A. If a site is not eligible for the National Register, no further work (i.e., testing, monitoring, excavation, or avoidance) is usually required. If the site contains information significant enough to warrant further work, the site should be evaluated as eligible (see Step 7). The evaluation of noneligibility is documented and a recommendation of "no further work" is made in the report.

7 & 7A. If a site is evaluated as eligible for the National Register, the reasons for its eligibility must be documented, with a detailed description of how the site meets the Criteria of Eligibility (36 CFR 60.4). If a site is eligible because of its research potential or information content (36 CFR 60.4(d)) the report must document and discuss the site information content in terms of pertinent research questions which may be addressed.

8. The effect of the project on each eligible site is evaluated and documented. "Effect" is determined by applying the criteria in 36 CFR 800.3.

8A1 & 8A2. If there will be no effect, no further work at the site is warranted. This is documented in the Class III report (see Step 9).

8B1. If the impacts to the site will result in adverse effects, this is also documented in the Class III report (see Step 9).

8B2. Recommendations to mitigate adverse effects should be directed at reducing or eliminating impacts to those qualities which make the site eligible for the National Register. Avoidance or in situ preservation are the preferred options. Data recovery is appropriate if avoidance or in situ preservation are not feasible or cost effective. Monitoring of construction may also be used under certain conditions.

APPENDIX E

9. A report is prepared documenting the results of Steps 1 through 8A2 and(or) 8B2 and copies of the report submitted to the BLM, the SHPO, and the applicant/land user.

10. The BLM, in consultation with the SHPO, and the Advisory Council on Historic Preservation use the information provided in Step 9 to carry the "106" review process to completion.

11. After the above process is completed, the proposed land use may be permitted with appropriate resource stipulations.

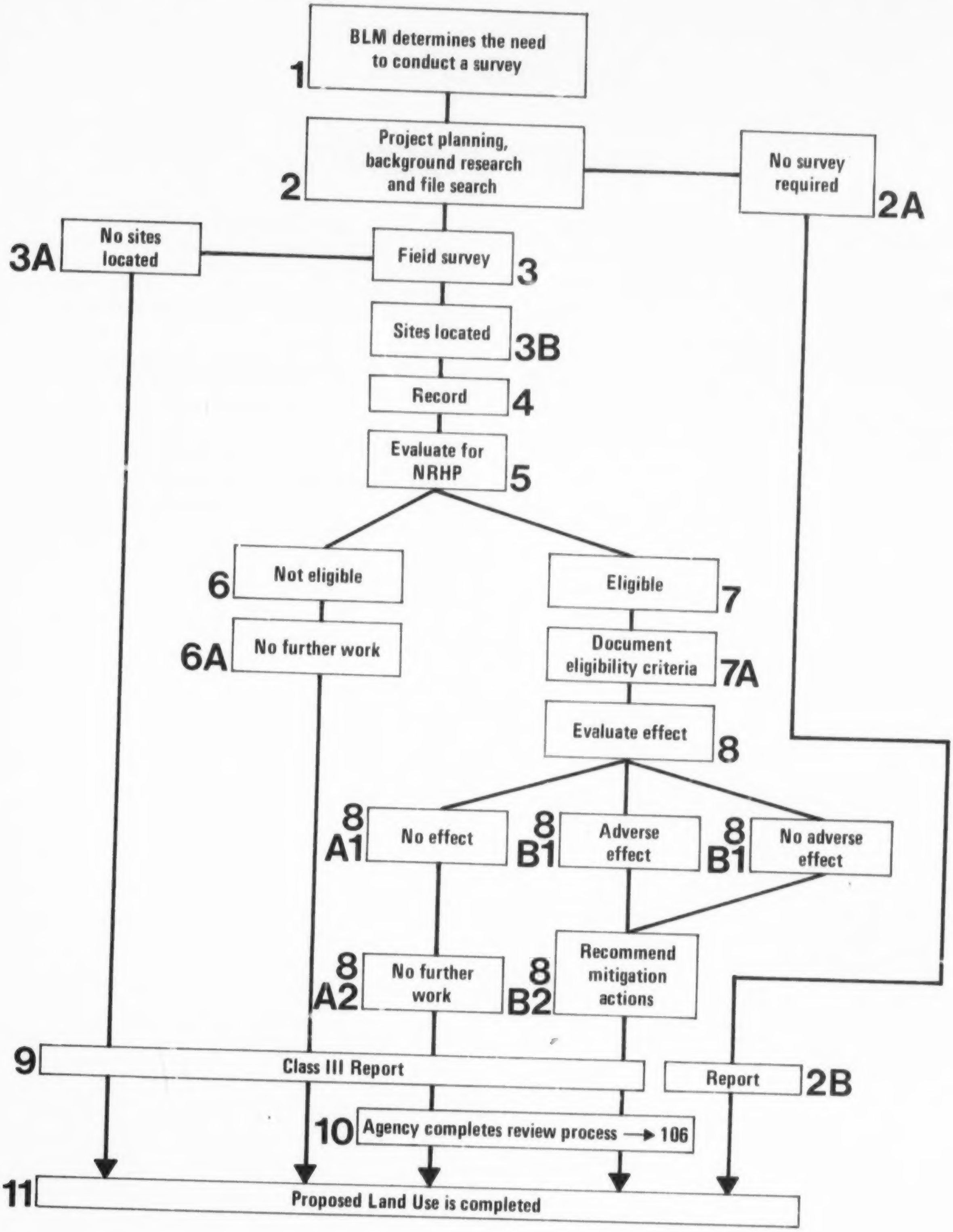

Figure 3
CULTURAL RESOURCES PROCESS

APPENDIX F-1

DISPOSAL CRITERIA

Lands to be considered for disposal, as a minimum, must meet the following criteria: they are difficult and uneconomical to manage, or their disposal would meet important public objectives such as community expansion or economic development.

In addition, site specific analysis prior to disposal must determine that these lands must have the following characteristics:

They contain no significant wildlife, recreation, or other resource values; have no overriding public values; and represent no substantial public investments;

They are suitable for agricultural, industrial, commercial, or residential development;

Their disposal would best serve the public interest; and

Lands identified for disposal would be considered for exchange with federal, state, or local government or other entities.

Generally, areas within two miles of communities would be considered for community expansion.

APPENDIX F-2

LANDS SUITABLE FOR CONSIDERATION FOR DISPOSAL, EXCHANGE, AND ACQUISITION

Legal Description	Acres Per Section	Total Acres
Disposal Parcels (for sale or exchange)		
1. T. 37 N., R. 110 W.		
sec. 2, Lots 1, 2, 3, 4	33.00	
sec. 3, Lots 1, 2, 3, 4	32.84	65.84
2. T. 37 N., R. 111 W.		
sec. 13, W½W½		160.00
3. T. 36 N., R. 112 W.		
sec. 2, Lot 2		37.20
4. T. 36 N., R. 110 W.		
sec. 20, SE¼SW¼		40.00
5-10. T. 36 N., R. 110 W.		
sec. 21, NW¼SE¼	40.00	
sec. 21, Lot 3	2.52	
sec. 21, Lot 4	2.52	
sec. 21, Lot 6	2.51	
sec. 21, Lot 7	2.51	
sec. 21, Lot 14	2.50	52.56
11. T. 33 N., R. 108 W.		
sec. 9, NW¼NW¼		40.00
12. T. 33 N., R. 108 W.		
sec. 10, SW¼SW¼	40.00	
sec. 15, W½NW¼	75.04	115.04
13. T. 33 N., R. 108 W.		
sec. 25, SW¼SW¼		40.00
14. T. 33 N., R. 107 W.		
sec. 31, Lot 1		40.26
15. T. 33 N., R. 108 W.		
sec. 35, SE¼NE¼, SE¼	200.00	
T. 32 N., R. 108 W.		
sec. 3, Lot 3	35.31	235.31
16. T. 32 N., R. 107 W.		
sec. 1, Lots 10, 11, W½SW¼	153.27	
sec. 2, Lots 3, 4, SW¼NE¼	115.27	268.54
17. T. 32 N., R. 107 W.		
sec. 12, Lot 4, SE¼SW¼, SW¼SE¼	74.58	
sec. 13, Lots 1, 2, 3, NW¼NE¼	143.87	
T. 32 N., R. 106 W.		
sec. 18, Lot 3	35.44	253.89
18. T. 32 N., R. 106 W.		
sec. 29, Lots 4, 6, 7, E½SW¼	207.13	
sec. 32, NE¼NW¼	40.00	247.13

APPENDIX F-2

APPENDIX F-2 (Continued)

LANDS SUITABLE FOR CONSIDERATION FOR DISPOSAL, EXCHANGE, AND ACQUISITION

Legal Description	Acres Per Section	Total Acres
19. T. 31 N., R. 106 W.		
sec. 18, Lots 1, 2, 3, NW¼NE¼, S½NE¼, E½NW¼, NE¼SW¼, N½SE¼	431.00	
T. 31 N., R. 107 W.		
sec. 12, NE¼SE¼, SE¼SW¼, S½SE¼	160.00	
sec. 13, N½NE¼, SE¼NE¼	120.00	711.00
20. T. 31 N., R. 106 W.		
sec. 8, NE¼SW¼		40.00
21. T. 31 N., R. 106 W.		
sec. 17, N½NE¼		80.00
22. T. 31 N., R. 106 W.		
sec. 30, W½NE¼		80.00
23. T. 30 N., R. 106 W.		
sec. 9, SE¼NW¼		40.00
24. T. 31 N., R. 108 W.		
sec. 25, S½SW¼		80.00
25. T. 31 N., R. 110 W.		
sec. 17, NE¼NW¼		40.00
26. T. 31 N., R. 110 W.		
sec. 17, E½SE¼		80.00
27. & 28. Tracts Listed Below:		
T. 29 N., R. 111 W.		
secs. 17 and 18		
Tract 37	2.50	
Tract 38	3.00	
Tract 39	2.29	
Tract 40	2.19	
Tract 41	2.50	
Tract 42	1.51	
Tract 45	2.50	
Tract 46	1.10	
Tract 47	1.40	
Tract 48	2.50	
Tract 49	2.50	
Tract 50	2.90	
Tract 51	2.50	
Tract 52	2.50	
Tract 54	2.50	
Tract 55	2.50	
Tract 56	2.50	
Tract 57	2.50	
Tract 58	2.10	43.99
29. T. 29 N., R. 111 W.		
sec. 17, SE¼SW¼		40.00
30. T. 26 N., R. 112 W.		
sec. 7, Lot 5		19.57
31. T. 26 N., R. 113 W.		
sec. 14, Lot 4, SW¼SE¼		71.15

APPENDIX F-2 (Continued)

LANDS SUITABLE FOR CONSIDERATION FOR DISPOSAL, EXCHANGE, AND ACQUISITION

Legal Description	Acres Per Section	Total Acres
32. T. 27 N., R. 115 W.		
sec. 7, E½SE¼		80.00
33. T. 29 N., R. 114 W.		
sec. 25, SE¼SW¼		40.00
34. T. 29 N., R. 113 W.		
sec. 13, SW¼NE¼		40.00
35. T. 29 N., R. 112 W.		
sec. 9, SE¼SW¼, N½SW¼SE¼		60.00
36. T. 30 N., R. 112 W.		
sec. 7, Lots 2, 3		30.90
37. T. 30 N., R. 114 W.		
sec. 10, SW¼NW¼, SW¼		200.00
38. T. 30 N., R. 114 W.		
sec. 5, SW¼, W½SE¼, SE¼SE¼	280.00	
sec. 8, N½N½, S½NE¼	240.00	520.00
39. T. 31 N., R. 114 W.		
sec. 24, SW¼SE¼		40.00
40. T. 31 N., R. 113 W.		
sec. 19, Lot 3		42.51
41. T. 32 N., R. 114 W.		
sec. 22, S½S½	160.00	
sec. 26, NW¼NW¼	40.00	
sec. 27, N½	320.00	520.00
42. T. 34 N., R. 112 W.		
sec. 15, W½NE¼, E½NW¼		160.00
43. T. 34 N., R. 113 W.		
sec. 5, S½SE¼		80.00
44. T. 34 N., R. 113 W.		
sec. 6, SE¼NE¼		40.00
45. T. 35 N., R. 113 W.		
sec. 18, Lot 4, SE¼SW¼	70.92	
sec. 19, Lot 1, NE¼NW¼	71.02	141.94
46. T. 26 N., R. 113 W.		
sec. 7, N½NE¼NW¼SE¼		5.00
TOTAL		**4,921.83**
Community Expansion Areas		
1. T. 34 N., R. 109 W.		
sec. 25, NW¼SW¼		
sec. 26, E½NE¼SE¼		60.00
2. T. 34 N., R. 109 W.		
sec. 26, NW¼NE¼SE¼, E½NE¼NW¼SE¼, NW¼NE¼NW¼SE¼		17.50
3. T. 33 N., R. 110 W.		
sec. 2, Lot 1, N½SE¼NE¼		60.86

APPENDIX F-2

APPENDIX F-2 (Continued)

LANDS SUITABLE FOR CONSIDERATION FOR DISPOSAL, EXCHANGE, AND ACQUISITION

Legal Description	Acres Per Section	Total Acres
4. T. 31 N., R. 108 W.		
sec. 3, S½SW¼SW¼		20.00
5. T. 30 N., R. 111 W.		
sec. 22, E½NW¼		80.00
6. T. 30 N., R. 111 W.		
sec. 17, NE¼SE¼, S½SE¼		
sec. 20, NE¼, S½NW¼, NE¼SE¼, S½SE¼		
sec. 29, E½NE¼, E½NW¼NE¼, NE¼SE¼		620.00
7. T. 26 N., R. 112 W		
sec. 6, Lots 3, 4, 5, 9, 12-29, SE¼NW¼		
T. 27 N., R. 112 W.		
sec. 31, Lots 3, 4, 9-11, W½NE¼, E½NW¼, E½SW¼, W½SE¼		602.02
TOTAL		**1,460.38**
Exchange Parcels (exchange only)		
1. T. 36 N., R. 112 W.		
sec. 3, Lot 2, SW¼NE¼, SW¼, W½SE¼		318.02
2. T. 36 N., R. 112 W.		
sec. 5, S½	320.00	
sec. 6, SE¼	160.00	
sec. 7, Lots 3, 4, E½SW¼, E½	479.23	
sec. 8, N½, N½S½	480.00	
sec. 9, S½N½, S½	480.00	
sec. 10, W½SW¼, SE¼SW¼, SW¼SE¼	160.00	
sec. 15, NW¼NW¼	40.00	
sec. 18, Lots 1, 2, 3, 4, E½W½	319.04	
T. 36 N., R. 113 W.		
sec. 13, E½NE¼, SE¼	240.00	2,678.27
3. T. 36 N., R. 112 W.		
sec. 19, N½NE¼		80.00
4. T. 36 N., R. 112 W.		
sec. 21, W½		320.00
5. T. 36 N., R. 112 W.		
sec. 14, W½NE¼, N½NW¼, SE¼	320.00	
sec. 23, E½	320.00	640.00
6. T. 36 N., R. 112 W.		
sec. 13, E½	320.00	
T. 36 N., R. 111 W.		
sec. 18, Lots 1, 2, 3, 4	142.80	462.80
7. T. 37 N., R. 110 W.		
sec. 33, NW¼SW¼		40.00
8. T. 36 N., R. 110 W.		
sec. 9, S½SE¼		80.00

APPENDIX F-2

APPENDIX F-2 (Continued)

LANDS SUITABLE FOR CONSIDERATION FOR DISPOSAL, EXCHANGE, AND ACQUISITION

Legal Description	Acres Per Section	Total Acres
9. T. 35 N., R. 113 W.		
sec. 13, SW¼NW¼NW¼SW¼, SW¼NW¼SW¼, NW¼SE¼NW¼SW¼, S½SE¼NW¼SW¼, S½S½	180.00	
sec. 14, E½SW¼, SE¼	240.00	
sec. 23, E½, E½NW¼, SW¼	560.00	
sec. 24, N½	320.00	
sec. 26, NE¼, N½NW¼, N½SE¼	320.00	
sec. 27, N½NE¼, NE¼NW¼	120.00	1,740.00
10. T. 34 N., R. 112 W.		
sec. 11, SE¼SW¼	40.00	
sec. 14, NW¼NE¼, N½NW¼	120.00	160.00
11. T. 34 N., R. 108 W.		
sec. 7, NE¼, N½SE¼, SW¼SE¼	280.00	
sec. 8, NW¼NW¼	40.00	320.00
12. T. 34 N., R. 108 W.		
sec. 18, Lots 1, 2, 3, 4, E½NW¼, NE¼SW¼		278.62
13. T. 34 N., R. 109 W.		
sec. 25, Lots 1-16, NE¼NW¼, S½NW¼, NE¼SW¼, S½SW¼	280.480	
sec. 26, S½NE¼NE¼NE¼, NW¼NE¼NE¼, S½NE¼NE¼, NW¼NE¼, S½NE¼, NW¼, N½SW¼, SW¼NE¼SE¼, SW¼NE¼NW¼SE¼, NW¼NW¼SE¼, S½NW¼SE¼	437.500	
sec. 27, Lots 1-7, 11-20, NW¼NE¼, S½NE¼, NE¼NW¼, NE¼SE¼	237.863	955.843
14. T. 34 N., R. 108 W.		
sec. 26, S½SE¼		80.00
15. T. 34 N., R. 108 W.		
sec. 34, Lots 3 and 4, S½NE¼, SE¼NW¼, NE¼SW¼, N½SE¼	313.98	
sec. 35, S½NW¼, NW¼SW¼	120.00	433.98
16. T. 33 N., R. 108 W.		
sec. 4, S½NE¼		80.00
17. T. 33 N., R. 108 W.		
sec. 21, SE¼	160.00	
sec. 27, S½	320.00	
sec. 28, E½	320.00	
sec. 33, NE¼, NE¼SE¼	200.00	
sec. 34, W½, N½NE¼, SW¼NE¼, SW¼SE¼	480.00	
T. 32 N., R. 108 W.		
sec. 4, Lot 4, SW¼NW¼, W½SW¼	155.12	
sec. 5, Lot 1, SE¼NE¼	75.02	
sec. 9, W½NW¼	80.00	1,790.14
18. T. 32 N., R. 108 W.		
sec. 21, SW¼SW¼		40.00
19. T. 32 N., R. 108 W.		
sec. 28, SW¼NW¼		40.00

APPENDIX F-2 (Continued)

LANDS SUITABLE FOR CONSIDERATION FOR DISPOSAL, EXCHANGE, AND ACQUISITION

Legal Description	Acres Per Section	Total Acres
20. T. 33 N., R. 106 W.		
sec. 30, Lots 3 and 4, E½SW¼		157.24
21. T. 33 N., R. 114 W.		
sec. 10, all		640.00
22. T. 31 N., R. 114 W.		
sec. 22, SW¼SE¼	40.00	
sec. 26, all	640.00	
sec. 27, NE¼, NE¼NW¼, S½NW¼, N½SW¼, SW¼SW¼, NE¼SE¼	480.00	
sec. 28, SE¼SW¼, SE¼	200.00	
sec. 33, N½N½	160.00	1,520.00
23. T. 30 N., R. 112 W.		
sec. 7, S½NE¼, N½SE¼	160.00	
sec. 8, SW¼NE¼, S½NW¼, N½SW¼, SW¼SE¼	240.00	
sec. 17, NW¼NE¼	40.00	440.00
24. T. 31 N., R. 111 W.		
sec. 14, E½, SE¼NW¼, E½SW¼		
sec. 23, NE¼NE¼		480.00
25. T. 31 N., R. 110 W.		
sec. 21, Lots 3, 4, 5, 6, and 8, NW¼NW¼, S½NW¼, NE¼SW¼, W½SE¼	103.92	
sec. 28, NW¼NE¼	280.00	383.92
26. T. 31 N., R. 109 W.		
sec. 28, Lot 2		2.18
27. T. 30 N., R. 109 W.		
sec. 5, Lots 2 and 5		66.78
28. T. 30 N., R. 109 W		
sec. 7, Lot 10		7.42
29. T. 29 N., R. 111 W.		
sec. 3, Lot 6		10.50
30. T. 29 N., R. 111 W.		
sec. 2, Lots 5, 14, 15		34.51
31. T. 29 N., R. 111 W.		
sec. 28, Lot 5		9.18
32. T. 26 N., R. 115 W.		
sec. 31, Lots 6, 7, 10, 11	120.94	
T. 25 ½ N., R. 115 W.		
sec. 31, Lot 4	18.68	139.62
33. T. 35 N., R. 109 W.		
sec. 19, Lot 2		37.08
34. T. 35 N., R. 109 W.		
sec. 19, N½SE¼		80.00
TOTAL		**14,546.103**

APPENDIX F-2

APPENDIX F-2 (Continued)

LANDS SUITABLE FOR CONSIDERATION FOR DISPOSAL, EXCHANGE, AND ACQUISITION

Legal Description	Acres Per Section	Total Acres
Acquisition Parcels		
T. 32 N., R. 106 W.		
sec. 8, Lots 3-7, NE¼, E½NW¼, NE¼SW¼, N½SE¼		
sec. 9, NW¼, S½		1,035.08
T. 33 N., R. 106 W.		
sec. 18, Lot 3		
sec. 19, E½SW¼, W½SE¼		197.27
T. 33 N., R. 107 W.		
sec. 13, S¼4, NE¼SE¼, W½SE1/4		
sec. 14, SE1/4		
sec. 15, SE1/4SE1/4		
sec. 23, NE1/4		640.00

GLOSSARY

ALLOTMENT is a specific livestock grazing area authorized for use by a specific livestock permittee(s) or lessee(s).

ALLOTMENT MANAGEMENT PLAN (AMP) is a detailed, site-specific activity plan which applies to a specific livestock grazing allotment. It is prepared in consultation, cooperation, and coordination with the permittee(s), lessee(s), and other involved or affected interests.

ALLOWABLE CUT is the amount of timber considered available for cutting during a specified or planned period of operation (e.g., year, decade). An allowable cut us based on timber conditions and multiple use limitations.

ANIMAL UNIT MONTH (AUM) is the amount of forage necessary for the sustenance of one cow or its equivalent for a period of one month.

ARTIFICIAL REFORESTATION is reforestation by planting seedlings or by direct seeding of an area by hand or from the air.

BOARD FOOT is a measurement of the volume of a tree which is based on a block of wood one foot square and one inch thick.

CLEARCUT is a harvest cutting of a stand of trees in which all trees are removed from a specified area.

COMMERCIAL CONIFER is an evergreen tree species capable of sustaining lumber and other forest product production and for which there is a commercial or economical demand.

COMMERCIAL THINNING is a silvicultural practice to remove a specified number of trees from a stand of trees which is growing too closely together. This operation, as in a precommercial thinning, usually leaves a specified number of trees on an area at a specified spacing interval. This is to transfer the growth potential of the land onto fewer of the best trees. This operation is usually conducted in a stand of larger trees, and a value is placed on the trees to be removed. Normally, the contractor doing the work will remove the products from the trees removed and sell them.

CONFINEMENT is to limit fire spread within a predetermined area principally by use of natural or preconstructed barriers or environmental or natural terrain conditions. Suppression action may be minimal and limited to surveillance under appropriate conditions. See containment and control.

CONTAINMENT is to surround a fire and any fires therefrom with a control line, as needed, which can reasonably be expected to check the fire's spread under prevailing conditions. See confinement and control.

CONTEXTURAL is the interrelated conditions or arrangement of parts in a structure or environmental unit, such as a fossil assemblage.

CONTROL is the extinguishment of a fire through preparation of a fire line around the perimeter, any spot fires therefrom, and any interior islands to be saved; burn out any unburned area(s) adjacent to the fire side of the perimeter fire line; and cool all hot spots that are immediate threats to the perimeter fire line, until the line can reasonably be expected to hold under foreseeable conditions. See containment and confinement.

CONVENTIONAL LOGGING METHODS OR SYSTEMS is utilizing standardized logging equipment or practices in a given locale. In western Wyoming, standardized equipment includes rubber-tired skidders or tracked dozers.

COVER, for the purposes of the forest management objective, is the commercial conifer protective cover for elk.

CRUCIAL RANGE can describe any particular range or habitat component (often winter range in Wyoming), but describes that component which is the determining or limiting factor in a wildlife population's ability to maintain and reproduce itself at a certain level and in good health (theoretically at or above the WGFD population objective) over the long term. Example: The total crucial winter range for a given elk herd unit should be available, relatively intact, and of sufficient carrying capacity to winter the major portion of the objective population in adequate body condition 8 or more years out of 10.

CUBIC FOOT is a measurement of the volume of a tree which is based on a block of wood one foot high, one foot wide, and one foot deep.

DBH (Diameter Breast High) is a measurement of the diameter of a tree at a point 4½ feet above ground level on the uphill side of a tree.

DISTURBANCE FACTOR FOR WILDLIFE is defined as human activities, including traffic and motorized activities often associated with surface disturbance activities, that affect wildlife species, particularly in crucial ranges.

EMERGENCY SALVAGE would consist of the removal of trees killed or seriously injured by wildfire, weather, and(or) insect/disease infestations.

EXISTING ROADS AND VEHICLE ROUTES are defined as routes that existed prior to the RMP, that were constructed or created by the frequent passage of motor vehicles, and that receive regular and continuous use.

FOSSILS OF SIGNIFICANT SCIENTIFIC INTEREST means a fossil, or an assemblage of fossils, characterized by:

(1) preservation of soft body parts;
(2) preservation of delicate or uncommon shell or skeletal parts of invertebrates;
(3) close or intimate association of plants with animals;
(4) preservation of the skull, whole isolated bones, or other diagnostic materials of poorly known or unknown vertebrates;
(5) a high concentration and diversity of plants and animals;
(6) fossils poorly known or new to the paleontological literature;
(7) unique or significant geographic or stratigraphic position such as type locality, only known occurrence, reptile-mammal transition, etc.;
(8) materials having the potential for clarifying the evolutionary structure, development, behavior of the organism and(or) its environment.

GRAZING PREFERENCE means the total number of animal unit months of livestock grazing on public lands apportioned and attached to base property owned or controlled by a permittee or lessee.

GLOSSARY

HIDING COVER FOR ELK is vegetation capable of hiding 90 percent of a standing elk from the view of a human at a distance of 200 feet or less.

HUNTER-DAY is the presence of one person on an area of land for the purpose of engaging in a hunting activity during all or part of a calendar day.

IGNITION, PLANNED The intentional setting of a fire for resource benefit; a prescribed burn.

IGNITION, UNPLANNED The incidental setting of fire by uncontrolled sources such as lightning, visitor negligence, or arson.

MHOS is a measure of conductance measured in micromhos per centimeter. Its opposite is ohms, the measure of resistivity.

MBF (one thousand board feet) is a timber volume unit.

MMBF (one million board feet) is a timber volume unit.

MONITORING is: 1) the orderly collection of data to evaluate effects of management actions; and 2) the surveillance of management actions to determine their effectiveness in meeting management objectives.

NATURAL REFORESTATION is reforestation by natural means, i.e., from seeds blown in from adjacent trees, from dormant seeds in the ground, or from seeds dropped out of cones on the ground.

NECESSARY TASKS are defined as work that requires the use of a motor vehicle. Examples include picking up big game kills, repairing range improvements, and managing livestock.

NONUSE is grazing preference that permittees are not using. Permittees must apply to either use or not use any or all portions of their total grazing preference. That portion which is approved for no use is termed "nonuse."

NO SURFACE DISTURBANCE GUIDELINE refers to a limitation(s) that may be required to protect particular values from activities or surface use. These limitations mainly consist of time (seasonal) and distance restrictions and can also preclude actual disturbance of the land surface in portions of (not entire) use authorization areas, such as a mineral lease area.

NO SURFACE OCCUPANCY areas are basically unsuitable for surface-disturbing activities.

OFF-ROAD VEHICLE MANAGEMENT DESIGNATIONS:

Open: Vehicle travel is permitted in the area (both on and off roads) if the vehicle is operated responsibly in a manner not causing, or unlikely to cause significant, undue damage to or disturbance of the soil, wildlife, wildlife habitat, improvements, cultural, or vegetative resources or other authorized uses of the public lands.

Limited: 1) A limited designation means vehicle travel is permitted only on roads and vehicle routes which were in existence prior to the date of designation in the Federal Register. Vehicle travel off existing vehicle routes is permitted only to accomplish necessary tasks and only if such travel does not result in resource damage. Or, 2) Vehicle travel is limited by number or type of vehicle and(or) season of use.

Closed: A closed designation means that vehicle travel is prohibited in the area. Access by means other than motorized vehicle is permitted.

PARTIAL CUTTING is a silvicultural system of logging in which only a portion of the trees on a given area are removed. Depending on the specific system, the remaining trees are usually left in a fairly constant spacing pattern.

POLE STAND is a stand of trees that average between 5.0 and 8.9 inches in diameter (DBH).

PRECOMMERCIAL THINNING is a silvicultural practice to remove a specified number of trees from a stand of young trees. This can be done by mechanical means (cutting with axe or saw or pushing over with tractors), or by chemical means (injecting unwanted trees with a poison), and usually leaves a specified number of trees per acre at a specified spacing interval. This spacing interval is generally based on the age and size of the trees in the stand and is undertaken to transfer the growth potential of the land onto fewer of the best trees on the site. In a precommercial thinning, no value is placed on the trees to be removed.

PRESCRIBED FIRE (planned ignitions) implies a planned ignition intended to enhance the resource that is targeted for treatment. Standard project policy and procedures will guide these actions. Prescribed fire actions may include unplanned ignitions and planned ignitions. Prescribed fire (unplanned ignitions) implies that fire effects are favorable to the resource managed under a specified set of environmental criteria (prescriptions).

PRESCRIBED BURNING implies a planned ignition intended to enhance the resource that is targeted for treatment (see Vegetation Treatment section for further details). Standard project policy and procedures will guide these actions.

REGENERATION is tree seedlings which are established on an area, either naturally or artificially, following some event in the life of a mature stand, either a harvest cut, a fire, a disaster, or some kind of event that killed or removed the trees.

RESOURCE DAMAGE is defined as leaving long-term signs of vehicle use (ruts) or causing erosion or water pollution, creating undue degradation of other vegetative or wildlife resources.

RIPARIAN, as applied to the RMP, is an area of land influenced by permanent water. It has visible vegetation or physical characteristics reflective of permanent water influence. Lake shores and stream banks are typical riparian areas. Excluded are such sites as ephemeral streams and washes that do not exhibit the presence of vegetation dependent upon free water in the soil.

ROAD CLOSURE, ADMINISTRATIVE is the closing of roads by means of locked gates. Administratively-closed roads are available for vehicular use associated with resource management activities.

ROAD CLOSURE, PHYSICAL is the closing of roads by means of physical barriers such as waterbars and rocks. Physically closed roads are rehabilitated/revegetated and are not available for vehicular use.

ROTATION AGE is the period of years required to establish and grow timber crops to a specified condition of maturity.

SAPLING STAND is a stand of trees with an average diameter of 1.0 and 4.9 inches (DBH).

SAWTIMBER STAND is a stand of trees with an average diameter (DBH) of 9 inches or more.

SENSITIVE RECEPTOR are categories of individuals of concern in developing a health and safety analysis. These categories are:

Employees of the applicants or contractors, including construction workers, well field employees, and employees working in the treatment plants or anywhere exposure might result.

GLOSSARY

Certain individuals from the general public who could potentially be present near sour gas facilities. These include ranchers, hunters, snowmobilers, residential dwellers not in established communities, and users of recreational facilities in the area (e.g., Fontenelle Reservoir).

Persons living in communities near facilities associated with sour gas operations. The facilities include pipelines, well fields, and treatment plants.

SITE QUALITY is the potential of a particular area to grow trees. This is based on many variables, including soil depth and quality, aspect (terrain configuration in relation to the sun), nutrient and water availability, etc.

SLASH (Logging Residue) is the tops, limbs, and other unusable portions of trees left on an area after logging. In some logging operations, this slash may contain firewood, poles, or other products usable by people other than the primary logger.

STAGE II INTENSIVE FOREST INVENTORY is a system devised by the U.S. Forest Service to intensively sample timber stands to calculate an estimate of the volume in a specified area of timberland. Intensity of sampling can vary. The intensity is usually one sample measurement point every 10 acres, depending on the total size of the area to be inventoried, and other criteria.

SURFACE DISTURBANCE refers to any action that would cause soil mixing or result in alteration or removal of soil or vegetation and expose the mineral soil to erosive processes. See "Disturbance Factor for Wildlife."

TIMBER STAND is a specified area of similar type or sized trees.

TOPSOIL is the fraction of a soil that contains the majority of soil fertility, microbiological populations, and a specifically localized seed source for that area.

VISITOR-DAY is the presence of one or more persons on an area of land or water for the purpose of engaging in one or more recreational activities for a period of time aggregating 12 hours.

WILDERNESS SUPPRESSION implies restraint in fire suppression methods that occur in designated wilderness areas. In these areas, the fire management objective is to manage fire in ways that will cause the least degradation to wilderness values. The areas may be managed as prescribed fire areas.

WINTER RANGE is range where a substantial number of a given population of animals (e.g., herd unit) use the suitable habitat sites within this range annually, only during the winter period (variable, but commonly between December 1 and April 30).

WOODLANDS are lands producing trees that are typically utilized as nonsawtimber products and sold in units other than board feet. Woodlands are those forest lands which are not included in the commercial forest land allowable cut base.

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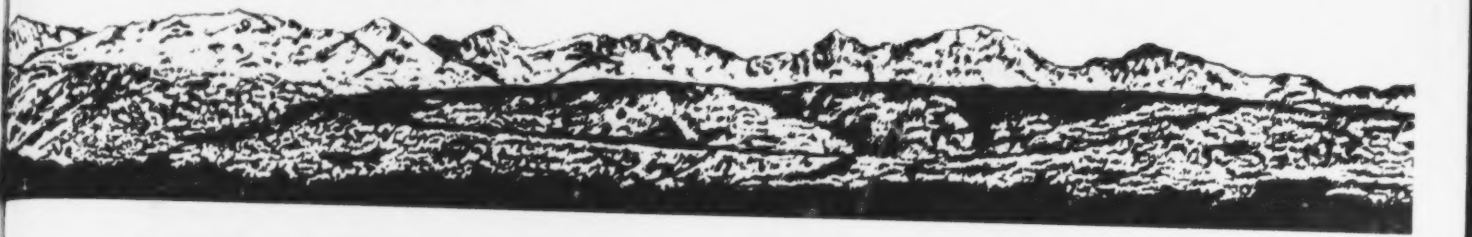

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